

AD-A226 077

**Military Equal Opportunity Climate Survey:
Reliability, Construct Validity, and Preliminary Field Test**

**Dan Landis
Center for Applied Research and Evaluation
University of Mississippi**

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AUG 14 1990



**Final Report
Contract F08606-89-C-007**

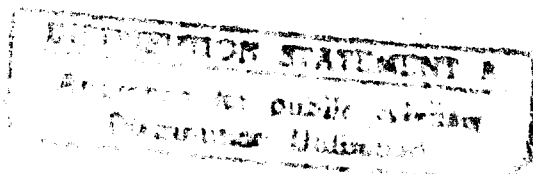
Submitted to:

**Defense Equal Opportunity Management Institute
Patrick Air Force Base, Florida**

Submitted by:

**Center for Applied Research and Evaluation
207 Peabody Hall
University of Mississippi
University, MS 38677**

January 10, 1990



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS	
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for Public Release; distribution is unlimited (Statement A)	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE				
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 90-1			5. MONITORING ORGANIZATION REPORT NUMBER(S) DEOMI-TR-90-1	
6a. NAME OF PERFORMING ORGANIZATION Center for Applied Research & Evaluation		6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION Defense Equal Opportunity Management Institute/DRR	
6c. ADDRESS (City, State, and ZIP Code) 207 Peabody Hall University of Mississippi University, MS 38677			7b. ADDRESS (City, State, and ZIP Code) Patrick AFB FL 32925	
6a. NAME OF FUNDING/SPONSORING ORGANIZATION OASD (FM&P)		6b. OFFICE SYMBOL (if applicable) RM&S	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER F08606-89-C-007	
6c. ADDRESS (City, State, and ZIP Code) OASD (FM&P) (RM&S) Washington, D.C. 20301-4000			10. SOURCE OF FUNDING NUMBERS	
			PROGRAM ELEMENT NO. 92198	TASK NO. MP810C
11. TITLE (Include Security Classification) Military Services Equal Opportunity Climate Survey: Reliability, Construct Validity, and Preliminary Field Test				
12. PERSONAL AUTHOR(S) Landis, Dan				
13a. TYPE OF REPORT Final Report		13b. TIME COVERED 1989 FROM 1 JAN TO 31 DEC	14. DATE OF REPORT (Year, Month, Day) 900110	15. PAGE COUNT 94 + 14 in Appdx
16. SUPPLEMENTARY NOTATION				
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP		
05	08			
05	01		Equal Opportunity Surveys, Measure of Equal Opportunity Climate, Organizational Effectiveness. (CP)	
19. ABSTRACT (Continue on reverse if necessary and identify by block number) An assessment of the reliability and construct validity of the Military Equal Opportunity Climate Survey (MEOCS) was the focus of this effort. 1650 military people from the Army, Air Force, Navy, Marine Corps, and Coast Guard completed MEOCS--a behaviorally based attitude measure of equal opportunity climate. In addition, the respondents completed measures of commitment to the service, perceived work-group effectiveness, job satisfaction, perceived ethnic and gender relations in the service, and demographic questions. Five field test sites were in the continental United States and one was located overseas. <i>Keywords: Military Forces (United States), Operational effectiveness.</i> Results indicated: (a) There were no differences between the various services on any of the measures; (b) MEOCS consists of five factors (Sexual Harassment/Discrimination Behaviors, Differential Command Behaviors, Positive				
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL Mickey R. Dansby, Lt Col, USAF			22b. TELEPHONE (Include Area Code) (407) 494-2746	22c. OFFICE SYMBOL DEOMI/DR

DD FORM 1473, 84 MAR

83 APR edition may be used until exhausted.

All other editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE

UNCLASSIFIED

18. (Continued)

Race Relations
 Psychological Measurement
 Human Relations
 Organizational Climate
 Commitment

Satisfaction
 Effectiveness
 Sex Discrimination
 Sexual Harassment

19. Command/Social Behaviors, Overt Racist/Sexist Behaviors, and "Reverse" Discrimination Behaviors); (c) MEOCS displays good to quite good reliability; (d) MEOCS appears to have good construct validity; and (e) MEOCS is a significant predictor of organizational functioning (i.e., commitment, satisfaction, and perceived work-group effectiveness).

Recommendations include developing service specific norms for MEOCS, developing a consultation process for commanders to use MEOCS, carrying out further research relating MEOCS to "objective" measures of unit functioning, and instituting a mechanism for updating MEOCS as equal opportunity concerns shift over time.



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DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
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Availability Codes	
Dist	Availability or Special
A-1	

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**Sponsor: Defense Equal Opportunity Management Institute
Contract Number: F08606-89-C-007
COTR: LtCol Mickey R. Dansby**

Executive Summary

An assessment of the reliability and construct validity of the Military Equal Opportunity Climate Survey (MEOCS) was the focus of this effort. 1650 military people from the Army, Air Force, Navy, Marine Corps, and Coast Guard completed MEOCS--a behaviorally based measure of equal opportunity climate. In addition, they completed measures of commitment to the service, perceived work-group effectiveness, job satisfaction, perceived ethnic and gender relations in the service, and a number of demographic questions. Five field test sites were in the continental United States and one was located overseas.

Results indicated: (a) There were no differences between the various services on any of the measures; (b) MEOCS consists of five factors (Sexual Harassment/Discrimination Behaviors, Differential Command Behaviors, Positive Command/Social Behaviors, Overt Racist/Sexist Behaviors, and "Reverse" Discrimination Behaviors); (c) MEOCS displays good to quite good reliability; (d) MEOCS appears to have good construct validity; and (e) MEOCS is a significant predictor of organizational functioning (i.e., commitment, satisfaction, and perceived work-group effectiveness).

Recommendations include developing service specific norms for MEOCS, developing a consultation process for commanders in the use of MEOCS, carrying out further research relating MEOCS to "objective" measures of unit functioning, and instituting a mechanism for updating MEOCS as equal opportunity concerns shift over time.

Acknowledgments

Any piece of research requires, for completion, the efforts and talents of many people. This statement is particularly true when the project is large and complicated. And, the present effort clearly proves the truth of the statements in the above sentences. Our professional colleagues contributed far more than the consultation fees that we were able to afford and we are happy to acknowledge their outstanding efforts here: Drs. Gloria Z. Fisher, Frank F. Montalvo, James Thomas, and Richard O. Hope. Dr. Fisher was also involved with me in the projects which led to the development of the initial versions of the Military Equal Opportunity Climate Survey and out of those efforts developed her doctoral dissertation project. She also sought out and summarized much of the material on organizational climate. Her contributions are most appreciated. Gary Huckaby and David Spruell served as professional assistants on this project. Gary, in particular, developed many of the administrative processes which proved so useful during data gathering and, working with Christine Johnson and Leslie Root, patiently squeezed out many errors of both omission and commission. I also want to thank the staff and students of DEOMI and the Points of Contact in the field as well as the close to 2000 personnel who gave their time and effort to provide the data which are reported here. Finally, I would like to acknowledge the support and help of LtCol Mickey R. Dansby, Director of Research at the Defense Equal Opportunity Management Institute. Colonel Dansby served as the Contracting Officer's Technical Representative (COTR) on this project and has been a steadfast supporter of the concept of measuring equal opportunity climate since the inception of this effort in early 1987. His perceptive comments and knowledge of the military organization helped us to avoid potholes into which otherwise we would have disappeared. Colonel Dansby has also been a valued colleague who has made major contributions to the conception and prosecution of this effort.

Dan Landis
Director
Center for Applied Research and Evaluation
Project Director

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Introduction

Brief historical review

A policy on equal opportunity is a relatively recent phenomenon in the military services. However, it is fair to say that once the military accepted a policy of complete integration and equality of opportunity, it has led the civilian sector in this area. It would also be fair, nevertheless, to admit that this was not always so. Lincoln only used Black soldiers when casualty rates among Whites made it politically inexpedient not to use them (Forner, 1974). The Black Buffalo soldiers were sent against another minority--the American Indians; and Black soldiers were confined to Black units in both world wars (Hope, 1979).

The modern period of equal opportunity in the military began within 2 years after the end of World War II. After receiving the 1947 report of a presidential commission, President Truman issued an executive order (9981 on July 26, 1948) establishing a Commission on Equal Opportunity in the Military. This order was the first step in making it the policy of the United States government that equal opportunity was to be implemented in all the armed services. That this was an act of political courage should not be doubted. Despite the findings of the Stouffer and Gillian reports (Stouffer, Lumsdaine, Lumsdaine, Williams, Smith, Janis, Star, & Cottrell, 1949; Quarles, 1961) that Black soldiers could be integrated into the armed forces with no degradation in military efficiency, there was widespread opposition to such a move.

The U.S. Army responded to the new directive well before the other services. In 1950, the quota on the number of Black soldiers was lifted and integration occurred in the training units at Ft. Ord. However, Blacks and other minorities remained concentrated in the lower ranks. Indeed, from 1962 to 1970, the number of Black officers never exceeded 3.5 percent.

In 1963, the Department of Defense issued Directive 5120.36, the first on equal opportunity which would apply to all services. And, the Department acknowledged that racial discrimination was harmful to effective accomplishment of assigned missions through a degradation of morale. More important, the directive placed the responsibility for eliminating discrimination on the individual unit commander.

Still, integration and equal opportunity did not occur at the pace many wished. During Vietnam, Blacks were drafted in higher proportion than their White peers and assigned to occupations requiring combat skills. So, in 1965, 27 percent of Black soldiers were assigned to combat units and in 1967, 20 percent of all Army fatalities were Black.

Current policy in the Department of Defense (DoD) is governed by four documents:

1. Department of Defense Human Goals statement (HG), which originally was issued on June 3rd, 1976 and revised several times since (the current version is dated March 21, 1988). The HGS is a broad statement of intent that DoD is to become a model organization in regard to equal opportunity (EO) and affirmative action (AA).

2. DoD Directive 1350.2 (issued April 29, 1987) which replaced two earlier directives (1100.15, issued June 3rd, 1976 and 1322.11, issued June of 1971 and revised in September of 1978). This directive implements the HG, requires the individual services to institute a continuing program in EO for general/flag officers and other commanders, and requires the services to provide the necessary resources to carry out their EO programs. The directive also establishes the primary training facility for EO training (originally known as the Defense Race Relations Institute and now as the Defense Equal Opportunity Management Institute), creates the Defense Equal Opportunity Council, to monitor progress in this area, and, establishes the Board of Visitors at DEOMI to provide consultation and oversight to the equal opportunity training program. The directive specifies the information to be included on AA plans and requires the filing of such plans annually by each service.

3. DoD Instruction 1350.3 of February 29, 1988. This memorandum provides specific guidance as to the filing of AA plans.

The representation of minority personnel in the services has shown increases at all levels, though the rate has leveled off in recent years. However, at the officer level, no service has a complement of Black personnel approaching or exceeding the population fraction (though the Army comes the closest with 10.7% in 1989; the Coast Guard is the least with 1.0% of its officer corps being Black; DEOMI, 1989). The Marine Corps has actually experienced a decline in Black enlisted personnel since 1982, while slightly increasing its percentage of Black officers over the same time period (4.0% to 5.1%). While it could be argued that the proportion of Black officers is actually above the level of Black college graduates, which is about 6%, nevertheless the ratio of Black officers to Black enlisted is not good (e.g., in the Army those ratios are: 1:20.53 for Blacks compared to 1:5.10 for Whites).

In any case, full integration remains an elusive goal for the largest social organization in American society despite major and sincere efforts to implement Truman's visionary order. It was with this background that the Defense Equal Opportunity Management Institute (DEOMI) initiated in 1987 a process to develop a measure of equal opportunity climate. Such a measure was in response to an objective issued by the Defense Equal Opportunity Council (DEOC) that same year.

The reasoning for this process assumed that a perception of racial and sexual discrimination degrades mission effectiveness. But, past measures, such as the Racial Awareness and Perceptions Survey (RAPS) developed in the 1970s, while providing interesting data, did not give much action guidance to commanders. Furthermore, RAPS was developed within an Army context and might not be applicable across all services in the 1990s and beyond. Finally, the atheoretical nature of previous efforts had left the services with no directions for change in the measures as situations were modified.

The present report summarizes the development of the Military Equal Opportunity Climate Survey (MEOCS). Specifically, this document presents the results of a construct validation and preliminary field test of MEOCS. In addition, we survey the pertinent literature in the field of organizational climate assessment, the military's past attempts to track racial perceptions, and the previous studies using MEOCS.

Review of literature

There is an extensive literature dealing with the characteristics of organizations that affect their personnel. This material usually goes under the rubric of "climate" in several different manifestations. It is useful to review this literature to determine just how the proposed measure of equal opportunity climate will fit within the existing theoretical structure. Such a theoretical structure also provides the basis for expectations on the relationships between MEOCS and other measures of organizational functioning. We will first summarize the literature on the concept of organizational climate, then examine that concept's relationship to certain measures of unit functioning (i.e., job satisfaction, effectiveness, and commitment), and finally, review the theoretical structure of MEOCS and how such a measure fits within current legal and scientific views of affirmative action and equal opportunity.

Issues in organizational climate research

Guion (1973), and James and Jones (1974), in extensive reviews of organizational climate research conducted up to the early 1970s, agreed that the term organizational

climate is, in Guion's terms, a "fuzzy concept." The reasons for this pessimistic assessment are many, but most revolve around the lack of clarity of the term and its consequent problematic status in a theoretical structure. For example, some climate researchers have conceptualized climate as an independent variable (e.g., Frederiksen, Jensen, & Beaton, 1972; Pritchard & Karasick, 1973) some as a dependent variable (e.g., Dieterly & Schneider, 1974; Lawler, Hall, & Oldham, 1974; Litwin & Stringer, 1968), and still others see it as an intervening variable (e.g., Hall & Schneider, 1973; Likert, 1967).

There is also wide disagreement as to the unique status of the term "organizational climate." Johannesson (1973) noted, for example, that many measures of organizational climate were extrapolations of instruments used to measure job satisfaction and, consequently, what researchers were naming as climate was in actuality another way of measuring satisfaction. He cited as evidence cluster analyses of climate and satisfaction which showed some overlap. Others (Schneider & Snyder, 1975) found that the two constructs do behave differently in relation to indexes of organizational effectiveness.

A controversial issue in the research has been whether climate is an objective attribute of an organization (e.g., structure, technology, stage of organization development), or a perceptual attribute (e.g., the individual's feelings about the workplace). While research does continue in the area of the objective attributes of an organization and their effect on outcomes, the term climate appears, for the most part, to refer to perceptions of the individuals working within the organization. As noted by Guion (1973), this focus may be due more to methodological convenience than deliberate intention. It is easier to administer instruments to subjects in an organization than it is to control or vary the objective attributes of the organization.

A second issue which has received much recent attention is the appropriateness of inferring relationships at one level in an organization from data collected at another level (Mossholder & Bedeian, 1983; Glick, 1985). For example, almost all studies gather climate data from individuals, yet ascribe the mean values to the organization as a whole or to subunits within the organizations. Further, there is often an interest in aggregating to ever higher levels within the organization. In such cases, level differences become confounded with individual differences (Mossholder & Bedeian, 1983) and rather intricate analytic procedures are necessary to disentangle the effects. Glick (1985) advocates distinguishing between organizational climate (in which the organization is the unit of analysis) and psychological climate (for which the individual is the unit for theory). One approach, described by Glick, would use the intraclass correlation from a one-way analysis of variance to estimate reliability at the organizational level. Given that the military, the organization of interest in the present research, consists of many organizations functioning at many different levels, the recommendations of Glick make considerable sense. In any case, failure to consider this issue may

be a reason for Pritchard and Karasick's (1973) failure to find at the unit level a relationship between organizational climate and productivity as well as satisfaction. They did, however, find significant relationships at the individual level.

Recommendations for future research often include the need to specify dimensions of organizational climate and to examine in both laboratory and field settings the relationships between climate and other organizational variables. The purpose of this section of the present report is twofold: to summarize the relevant research on organizational climate and its relationship to other organizational variables, and to suggest that one of the dimensions of organizational climate is the perception of the basis for rewards (e.g., equal opportunity climate). Later, we will review a recent investigation into the construct of equal opportunity climate (EOC). The dimension of EOC may be seen as critically salient for women and minorities and has become more important for organizations as they attempt to maintain positive morale and to comply with Affirmative Action's goals.

Definitions of organizational climate

The notion that organizations may have "climates," and that these climates may in turn affect behavior is not a recent one. Kurt Lewin and his colleagues conducted perhaps the first investigation into the effects of social climate change (Lewin, Lippitt, & White, 1939; Lippitt, 1940; Lippitt & White, 1947). Three social climates (authoritarian, democratic and laissez-faire) were shown to lead to the creation of consistent behaviors. It is interesting to note that these authors perceived that they were really investigating leadership rather than "climate." That is, "atmosphere" as a theoretical term was dependent wholly on changes in leadership behavior. In contrast, Fleishman (1953) showed that foremen adapted their behavior to the prevailing climate in a factory by behaving in a style that fit their work climate, not as they were trained in a human relations class.

Definitions of organizational climate have come from several researchers. For example, Forehand and Gilmer (1964) suggest that organizational climate is "a set of characteristics that describe an organization and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization." Campbell, Dunnette, Lawler, and Weick (1970) describe organizational climate, in a similar fashion, as a set of attributes specific to a particular organization that may be deduced from the way the organization deals with its members and its environment. From this latter formulation, it would then appear that, for the individual member within an organization, climate takes the form of a set of attitudes and expectancies which describe the behavior of the organization. Pritchard and Karasick (1973), in a statement quite similar to that of Litwin and

Stringer (1968), define organizational climate as a relatively enduring quality of an organization's internal environment which distinguishes it from other environments. It results from the policies and behavior of certain organization members, especially top management, that is, leadership (a concept strikingly reminiscent of the Lippitt studies). These definitions share one characteristic: they imply a characteristic which exists separately from individuals in the organization. These definitions are also relatively silent on methods for assessing the characteristics of the organizations which are independent of the behaviors and perceptions of the individuals in the structure.

It should not be surprising that it has been questioned by some whether organizational climate is an actual attribute of the organization or if it is an individual's perception of the situation (Guion, 1973). Indeed, Guion went so far as to suggest that there may be as many climates as there are individuals in the organization. Steers (1977) suggests that it is important to note that one is dealing with the perceptual realm when defining climate. It is that which employees believe it to be, not necessarily what it really is; and the climate that emerges represents a major determinant of behavior.

In an interesting suggestion, Tagiuri (1968) noted that climate is similar to the concept of the quality of an object. Quality is defined in terms of a set of variables (e.g., price, workmanship, ingredients), but it is not the set of variables, (i.e., price, workmanship, ingredients). It is rather, a configuration of values of such a set of attributes. In a particular instance this might be high price, good workmanship and rare ingredients. Tagiuri seems to be opting for an interactionalist approach in which climate is (a) unique to the setting and (b) a concatenation of objective and subjective properties but not identical with either.

Going further into the perceptual realm, Jones (1984) argues that climate refers to the individual's cognitively based description of psychologically meaningful influences in the work environment. Climate provides meaning and organization to events in the work organization and can influence the individual in at least two ways. Events in an organization can activate the individual's schemata that will tend to make that person focus his/her attention and memory on certain events and outcomes more than others. Climate also influences us through social learning. We observe what happens to other employees in an organization and this in turn influences our perception of the climate within that organization.

Much of the research reviewed here suggests that organizational climate is not a unitary phenomenon; rather, it consists of separate and measurable dimensions. If there is reason to assume that there may be a relationship between organizational climate and at least certain other organizational variables, that relationship would most surely vary as a function of the dimension being considered. So, it would be beneficial to attempt to isolate the dimensions of the overall organizational climate that most impact these

outcomes. Schneider (1975) suggests that focusing on the individual dimensions of climate may be more appropriate than using an omnibus measure of overall climate. Schneider and Snyder (1975) and Steers (1977) note that most organizations have several climates rather than just one. Pritchard and Karasick (1973), in their study of the relationship between climate and two outcome measures, used 11 dimensions (autonomy, conflict vs. cooperation, social relations, structure, level of rewards, performance-reward dependency, motivation to achieve, status polarization, flexibility and innovation, decision centralization, and supportiveness). The interscale correlation matrix indicated a fair amount of orthogonality, but since a factor analysis was not done, we can not be sure of independence in this particular study. The specific findings of this study will be summarized below. However, Pritchard and Karasick (1973) did recommend further research in refining and operationalizing all the dimensions and facets of climate, and suggested that the effect of these climate dimensions on behavior be further examined and tested.

Campbell et al. (1970) and Payne and Pugh (1976) suggest that climate instruments are all characterized by several common dimensions: (a) autonomy, (b) structure, (c) reward, and (d) consideration, warmth, and support. However, Hellreigel and Slocum (1974) note that while there seems to be this common core of climate dimensions, there is increasing diversity beyond this core. Other dimensions of climate which have been studied are leadership climate (Fleishman, 1953), motivational climate (Litwin & Stringer, 1968), safety (Zohar, 1980), and creativity climate (Taylor, 1972). These researchers were attempting to assess the pattern of formal and informal practices and procedures which resulted in some criterion behavior of interest.

Norwood (1980) discusses several dimensions of organizational climate, of which equal opportunity and fair and equitable treatment of individuals are two. It would appear reasonable to consider the perception of equal opportunity as either an important facet of overall organization climate, or, alternatively, as one "climate" among many which may define the given organization.

Given the above conflicting points-of-view, it is not surprising that many researchers have called for more research into the concept of organizational climate. It is to these recommendations that we now turn.

Although climate remains an important tool in understanding human behavior, the recommendations for additional research have not, for the most part, been followed. The absence of clarity in research regarding what constitutes organizational climate and what its antecedents and consequences are may indicate that it is more beneficial to study the individual dimensions of climate, as well as to consider that many different types of climate may exist, depending on level within the organization as well as domain (e.g., Zohar, 1980; Guion, 1973).

James and Jones (1974) recommended that new research be focused on identifying the conceptual bounds of organizational climate so as to determine the specific variables, dimensions, and constructs that comprise the referent. In that same year, Hellriegel & Slocum noted that climate dimensions must be further redefined and operationalized and experimental field tests be conducted. They also recommended that future research should focus on causal links between climate and measures of job performance, turnover, grievances, and the like.

In his essay on the importance of the organizational climate concept, Schneider (1975) concluded that each work organization probably engenders a number of different types of climates, the implication of which has received little investigation (i.e., that there does not exist an overarching climate in an organization, but rather a number of delimited and substantively defined climates: safety, productivity, equal opportunity, etc.). Pritchard and Karasick (1973) noted that, since most studies have been bivariate correlational in nature, the causal links between any putative dimensions of organizational climate and outcome measures are forced to remain obscure.

A major flaw in the measurement of organizational climate is the lack of theory which would serve to unify research. Without a theory and a model which would postulate antecedents and consequences of climate as well as delineating what constitutes climate, research has frequently proceeded without much direction. Some research has begun in the way of providing theory for the construct of organizational climate. For example, Miller, Topping, and Wells-Parker (1989) propose a corollary to Barker's ecological theory. They suggest that the principle of ecological dissonance explains several of the phenomena associated with organizational climate. Ecological dissonance exists when two or more environmental systems conflict or when one or more personal subsystems conflict with one or more environmental systems, and if not reduced, the ecological system will continue pressing the employees until the system disintegrates (i.e., the organizational climate is "poor") or some degree of consonance is achieved (i.e., the organizational climate is "good" or at least better). This approach seems quite similar to Triandis' concept of "ecosystem distrust," which was used to explain the behavior of the hardcore unemployed (Triandis, 1976). The problem with all of these approaches is the same as with the original formulation of climate: how to measure organizational properties separate from human judgment and perceptions.

A considerable amount of the literature on organizational climate concerns the relationship between climate and behavior of the individuals within the organization. By far, the majority of this research is correlational in nature with the assumption generally being that climate impacts on the behavior of individuals. It is of obvious importance to determine if climate enhances, degrades, or has any effect on individual behavior and on organizational outcomes. The three major areas of study regarding

the relationship such outcomes have with organizational climate have been satisfaction, effectiveness, and commitment. And, it is to an analysis of these effects that we now turn.

Outcomes of organizational climate

1. Satisfaction

The most consistent positive relationship of climate with organizational outcomes is that with satisfaction. Litwin and Stringer (1968) simulated three organizational climates by varying leadership style to be authoritarian, friendly, and achieving, in a way reminiscent of Lippitt's studies referred to earlier. These climates were designed to arouse one of three motivations in "employees"--achievement, affiliation, or power. The authoritarian climate had low satisfaction, negative attitudes toward the group, and low innovation and productivity. The friendly climate had high job satisfaction, positive attitudes toward the group, and moderate innovation and low performance. The achieving climate also showed high satisfaction, innovation, and productivity in addition to positive group attitudes. So, here job satisfaction varied as a function of the type of "climate" induced.

Pritchard and Karasick (1973) point out that climate does not operate as a unitary main effect, but interacts with individual needs and values in influencing behavior. Individuals come to the workplace with differing needs and values (e.g., need for interpersonal relationships, advancement, task involvement). It is therefore not simply a matter of determining what type of climate will maximize satisfaction, but rather what climate will maximize satisfaction for individuals who have different values and needs. It follows that satisfaction can take different forms. These authors found that the zero order correlations between the dimensions of organizational climate and satisfaction ranged from a low of .11 (for autonomy, nonsignificant) to a high of .66 (for level of rewards, $p < .01$). The mean correlation was .45.

In examining the relationships between organizational climate and satisfaction, Schneider and Snyder (1975) found that climate and satisfaction measures were correlated for people in some positions in life insurance agencies (correlations as high as .70 for staff, in-house trainees, and brokerage trainees), but were not significantly correlated for managers and secretaries-stenographers. Neither climate nor satisfaction was strongly correlated with production data, a finding also reported by Pritchard and Karasick (1973); satisfaction, but not climate, was correlated with turnover data.

Most studies have assumed a unifactor structure for job satisfaction. Friedlander (1963) found, however, that this variable can be reliably decomposed into three

dimensions: Interpersonal relationships, task-involved self-realization, and opportunities for recognizable advancement. Later, Friedlander and Margulies (1969), using the three-factor version of job satisfaction and an eight-factor version of organizational climate (Halpin & Crofts, 1963; Margulies, 1965), found that the climate predictors of satisfaction varied as a function of the particular dimension being considered. Thus, satisfaction with interpersonal relationships was predicted ($R = .73$) by climates high in esprit, low in hindrance, and high in thrust (management behavior characterized by efforts "to get the organization moving."). In contrast, satisfaction with advancement was best predicted by situations high in thrust and intimacy and low in hindrance ($R = .63$).

In a study directly related to the present project, Sheinfeld and Zalkind (1987) measured civil liberties climate and correlated it with job satisfaction and work alienation (defined as one's psychological identification with work) for 144 graduate students who also worked. Civil liberties climate was defined as a dimension of organizational climate related to policies and practices regarding individual freedom (freedom of expression, conscience, and assembly). Results indicated significant correlations between civil liberties climate and job satisfaction ($r = .36$) and work alienation ($r = -.60$).

Even though climate and satisfaction have been shown to be consistently and positively related, there are a number of variables which may moderate the relationship. As noted by Friedlander and Margulies (1969), the value that individuals place on work may affect their level of satisfaction. DiMarco (1975) also suggests that compatibility between an individual's life style and his/her work group structure, co-workers, and superiors are positively related to job satisfaction.

Moch (1980) noted racial differences in job satisfaction. Race explained 53 % of the variance in a study of the effect of race on satisfaction. Whites who worked in predominantly "White" groups were more satisfied; Blacks working in "Black" groups were less satisfied. Structural factors (differences in how employees are treated by the organization and by supervisors) and cultural factors (beliefs, values, or psychological states that predispose members to respond differently to their experiences in the organization) did not significantly mediate the relationship between race and satisfaction. Other factors affecting satisfaction include self-esteem and perceived degree of bureaucracy (Snizek & Bullard, 1983).

2. Effectiveness

The relationship between climate and effectiveness of an organization may be the most difficult of the variables to define because it must be determined within the context of the system. Some of the measurements of effectiveness have included organizational

adaptability, productivity, satisfaction, employee retention, and profitability (Steers, 1975). Many of these variables show up in measures of organizational climate as well as in other variables reviewed here (e.g., commitment, satisfaction). In general, however, most studies seem to agree that one outcome of whatever climate is present is the effect on productivity, as well as a personal sense of job-related efficacy, though the relationship is often modest at best (e.g., Pritchard & Karasick, 1973).

In discussing the role of climate in organizational effectiveness, Steers (1977) makes some key points: (a) Because climate is generally regarded as existing on an individual or group level (as opposed to organization wide), outcome measures must also be considered on an individual or group level; and, (b) Instead of talking about climate leading to effectiveness, it is probably more appropriate to talk in terms of individual or group-related facets of effectiveness (e.g., job satisfaction, employee performance, organizational commitment), a rationale which may explain Pritchard and Karasick's (1973) failure to find much of a relationship between climate and performance. Steers concludes (after reviewing several climate research efforts) that the most favorable climate for both production and satisfaction is generally one which emphasizes both employee achievement and employee consideration; if the climate is in opposition to personal goals and needs, performance and satisfaction are expected to be diminished.

In a correlational study of research and development personnel and scientists, Lawler, Hall, and Oldham (1974) found significant positive relationships between organizational climate and both performance (r s as high as .49 on some dimensions) and satisfaction (r s as high as .73). Effectiveness of managers was significantly related to two dimensions of climate (level of rewards, $r = .24$; achievement, $r = .25$) in the study by Pritchard and Karasick (1973), but the relationship was weaker than that between climate and satisfaction. And, Kackza and Kirk (1968) found that performance is affected by organization climate. Employee-centered climate yielded higher satisfaction, and in some cases higher performance, than the task-centered climate.

The finding that the relationship between climate and effectiveness has generally been less consistent and weaker than that of climate with satisfaction and commitment may be due to the fact that there are a number of variables other than climate which may influence performance, such as job design and personal ability (Lawler, 1973). Locke (1970) noted the positive effect of goal-setting by employees on productivity. Porter and Lawler (1967) found that employees often do not see the relationship between hard work and rewards and consequently fail to perform to maximum capacity. Technology and environmental constraints may also attenuate the relationship between climate and effectiveness (Flippo & Munsinger, 1982). For many minority persons, the relationship between effort and outcome is seen as tenuous at best (Triandis, 1976). To the extent that such persons are included in the research samples, the relationship will certainly be degraded. But, perhaps, the more important issue is not the relationship between

climate and performance in the abstract, nor even the moderating effect of racial/cultural differences, but the experiential antecedents of the connection. Despite the obvious impact of the employee's history with either the present or previous organizations, this factor has rarely, if ever, been investigated.

3. Commitment

Like most terms in the organizational literature, commitment has its supporters and detractors. Indeed, Morrow, (1983) after an extensive review, concluded that "commitment has consumed an inordinate amount of researchers' attention without a commensurate increase in understanding..." (p.498). Part of the reason for this lack of sanguinity lies in, as with the other concepts we have reviewed, the murkiness in its definition as well as its status within a theoretical net. Commitment has been defined in several ways and is most likely multidimensional in nature. As an attitude, commitment differs from the concept of job satisfaction. Commitment would seem to emphasize attachment to an employing organization, including its goals and values, while satisfaction emphasizes the specific task or task environment. Organizational commitment, therefore, could be seen as being more stable over time (Mowday, Steers, & Porter, 1979). Commitment may precede and cause satisfaction and may even begin as a function of pre-entry experiences (O'Reilly & Caldwell, 1981). Hence, commitment has been defined as the relative strength of an individual's identification with, and involvement in, a particular organization, the willingness to exert effort on behalf of the organization, the degree of goal and value consistency with an organization, and the desire to maintain membership (Bateman & Strasser, 1984; Mowday, Porter, & Dubin, 1974; Porter, Crampon, & Smith, 1976; Porter, Steers, Mowday, & Boulian, 1974).

Commitment may be active (working in support of the organization) or passive (willingness to remain). Relatively strong relationships have been shown between commitment and turnover and absenteeism; lesser relationships have been shown between commitment and performance effectiveness (Steers, 1977).

Buchanan (1974) found support for a positive relationship between work experiences and commitment. Building on Buchanan's work, Steers (1977) postulated a model of commitment with its antecedents and consequences. Work experiences, job characteristics, and personal characteristics were examined as to their relationship to commitment. Work experiences (including group attitudes) were found to be more closely associated with commitment than the other two sets of variables.

Intrinsic factors of the work (responsibility, opportunity for advancement, personal feelings about the work, and the job itself) have been shown to be positively related to both satisfaction and commitment. Other moderators of the relationship between organizational climate and commitment include the availability of other job alternatives (O'Reilly & Caldwell, 1981), age (Hrebiniak, 1974), education (inversely) (Koch & Steers, 1978), organizational dependability, perceived personal importance to the organization, and task identity (Steers, 1977).

In one of the more interesting recent studies, DeCotiis and Summers (1987) carried out a path analysis of commitment with several other measures of organizational functioning (e.g., two dimensions of climate, a measure of organizational structure, two measures of communication and decision processes, three measures of satisfaction, morale, motivation, and job performance. Commitment was found to be predicted by climate (path coefficients of .30 and .22), which in turn was impacted by organizational structure and processes. Commitment was also affected by satisfaction and morale, and in turn had a significant impact on two measures of job performance. Clearly, this type of study would seem to be needed if the various terms are to be placed together in a rational theory of organizational behavior.

It is clear from the research reviewed above that: (a) Organizational climate as an omnibus characteristic is becoming increasingly problematic; (b) While certainly behaviors and attitudes may be the results of climate, it is important that the relevant experimental operations be orthogonal; (c) Structures and analytic procedures need to be developed to test the relationships of the various terms; and (d) Pervading many of the concepts is the dimension of equitable distribution of rewards. In fact, this later dimension may be so important as to be underlying the construct of organizational climate. This latter point bears further discussion.

Climate and equal opportunity

In equal opportunity litigation, the presence of a discriminatory climate or "atmosphere of discrimination" is becoming increasingly used as a basis for legal action under Title VII of the Civil Rights Act of 1964, particularly in the area of sexual harassment (Laurent, 1987). The theory of the atmosphere of discrimination is based on an employee's Title VII right to work in an environment free from the psychological harm flowing from an atmosphere of discrimination. Under this theory, plaintiffs do not have to show that a specific discriminatory act had tangible employment-related consequence, but they must establish that the debilitating impact of their work environment indirectly affected the conditions of their employment.

The Equal Employment Opportunity Commission (EEOC) guidelines state that unwelcome sexual conduct may become sexual harassment when it has the purpose or

effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive work environment (Baxter, 1985). In several court cases that have been tried under this theory (Brown v. City of Guthrie, 1980; Bundy v. Jackson, 1979), if an employee could show that the conduct had the indirect effect of substantially interfering with his/her work performance by creating an intimidating, hostile, or offensive work environment, relief could be granted. These findings and court cases indicate that, in the future, the climate or atmosphere of an organization will be viewed as an important determinant in discrimination (Faley, 1982).

Fahey and Pati (1975) noted that one reason for slow progress in achieving equal employment opportunity is that organizational climate and its impact on supervisory attitudes and the resultant misutilization of minority employees are frequently ignored. They prescribe that management should improve organizational climate, making it possible for everyone, including the minorities, to survive, compete, and grow (i.e., reduce the level of "ecological distrust"; Triandis, 1976). McLane (1980) agreed, suggesting that, ultimately, the organizational climate must be accepting and supportive of qualified women, or the best intentioned efforts will fail. The U.S. Civil Service Commission (1971) has stated that "a receptive climate is the foundation which supports affirmative action."

In examining the relationship between organizational climate and affirmative action, Nelson (1981) suggests that an association exists between the two. The organizational climate which seemed best to facilitate the implementation of affirmative action was one characterized by openness, trust, *esprit de corps*, consultative decision making, reward and recognition mechanisms, an adequate amount of timely information, great use of interpersonal and group communication, and reliance on formal versus informal sources of information.

And, in a recommendation strikingly like the rationale for the present effort, Sargent (1978) suggested that in order for affirmative action programs to be successful, a climate survey should be used initially to assess quality of work life for women and minorities. The effect of the climate survey would be to increase awareness about minority and women's issues.

Using the rational bias theory of managerial behavior, Larwood, Szwajkowski, and Rose (1988) predicted that, in the absence of information to the contrary, managers in secondary power positions make discriminating decisions based on beliefs concerning the preferences of those having power over them. Thus, with a perceived norm of discrimination against minorities and women, decisions by subordinates will favor males and Whites. If superiors indicate counternormative preferences, the decisions of subordinates may eliminate or reverse discrimination. Both their study and Katz's research (1987) provided support for the norm-based theory of discrimination. These

studies add further evidence to the impact that can be made by the power holders in an organization in the area of equal opportunity treatment.

While the importance of equal opportunity and equal treatment is apparent for humanitarian reasons, ultimately the incentive for it may be most enhanced if a link between it and other important organizational variables can be shown. If it can be shown that perceptions of equal opportunity and treatment have a positive relationship with satisfaction, productivity, organizational commitment, and/or effectiveness, it would give added reason to ensure such a climate. As mentioned earlier, relationships have been shown between organizational climate and these organizational variables, but no previous research has addressed what, if any, relationship the perception of equal opportunity has with them.

In his chapter on organizational behavior and effectiveness, Cummings (1983) suggests that there may be a link between effectiveness and some of the facets of equal opportunity climate. He prescribes that in order for an organization to be effective: (a) Individuals must believe in the fairness of the system through which rewards are distributed (Martin, 1981); (b) Individuals must believe that the reward systems that they experience are equitable when outcomes are compared to inputs across individuals within social comparison groups (Goodman, 1977); (c) Individuals must perceive that performance will lead to rewards. [For effectiveness to be enhanced, managerial and personal actions must contribute positively to these contingency perceptions (Cummings, 1975)]; (d) Given that individuals perceive positive contingencies, then these individuals must believe that neither personal ability nor motivation will be constrained artificially by technology, organizational design, or managerial style (Cummings, 1983).

These prescriptions for effectiveness can be seen to be related to both the expectancy and equity theories of motivation (Adams, 1965; Lawler, 1973; Vroom, 1964). One aspect of the expectancy theory of motivation states that unless an individual sees a connection between performance and rewards, then he/she will not be motivated to perform (Steers, 1977). Equity theory suggests that a person's perception of the ratio of his/her inputs to outcomes must be perceived to be equitable to a comparison other. Both these theories of motivation have received qualified support in the literature.

Given the present state of awareness about the moral and legal issues that surround the concept of equal opportunity, it is appropriate to determine if equal opportunity climate can be defined and measured, and to begin to hypothesize and test for certain links between EOC and other organizational variables. The research has tended to treat race as separate from sexual discrimination, a reflection of the time period during which many of the studies were conducted. Most of the studies of racial discrimination in the military were conducted during the 1970's, while the sexual harassment/discrimination efforts occurred in the last 10 years. This separation probably reflects the growing

numbers of women in the service over this time period (from 5.4% in 1976 to 10.7% in 1989; DEOMI, 1989).

Military research on climate and race relations

The military (particularly the Army, through the Army Research Institute for the Behavioral and Social Sciences) has conducted research on both organizational climate and race relations climate (Brown, Nordlie, & Thomas, 1977; Parker, 1974; Pecorella, 1975; see Day, 1983, and Landis, Hope, & Day, 1984 for a summary of many of these studies) in an attempt to determine their relationship with equal opportunity and treatment of military personnel. From the promise of President Truman's Executive Orders of 1947 and 1948 to the statement of Human Goals (1988), equal opportunity and treatment has received emphasis by the military.

Although previous research on climate in the military has not focused on the construct of equal opportunity climate, several researchers have attempted to assess both organizational climate and race relations climate in the military. Most of this previous research has focused solely on racial discrimination, particularly against Blacks (e.g., Breitzke & Ferrara, 1974; Brown, 1977).

Bowers (1975) measured organizational climate variables in the Navy by using the Survey of Organizations (SOO). In general he found that scores of the respondents in the Navy were lower on all measures of organizational climate than nearly three fourths of civilian respondents. The findings showed more felt discrimination by minorities, particularly Blacks; at the same time there was a negative relationship between the two (i.e., the better the climate, the less the felt discrimination).

Two other studies using Navy personnel as respondents came to some interesting conclusions regarding racial discrimination and organizational climate. Parker (1974) found almost no difference between perceptions of organizational climate by race. He also found that racial composition of the work group was a critical moderator variable *in the relationship between experienced practices and felt racial discrimination*. Pecorella (1975) found that organizational climate measures presented patterns of (if anything) perceived "reverse" discrimination; objective data, such as advancement and training opportunities did not. Pecorella also found that felt personal discrimination seems to be closely tied to one's immediate work environment (particularly to advancement opportunities and friendly relations with one's peers). Bowers (1975) concluded that there is a heavy local effect in felt racial discrimination against oneself in the Navy. Much of the perception that one is discriminated against stems from job characteristics (promotions) and from relations with one's co-workers.

Nordlie (1977) measured changes in institutional racial discrimination in the Army. He found several general patterns: Blacks were underrepresented on dimensions which would be to their advantage (e.g., promotion rates) and overrepresented on dimensions which would be to their disadvantage (e.g., less-than-honorable discharges).

In a survey by the Army Research Institute (Brown, Nordlie, & Thomas, 1977) conducted in 1972, there was a notable difference in how the "race problem" was seen by Whites and Blacks in the Army. Whites in the Army tended to accept the proposition that the Army is free from racial discrimination. Blacks saw the Army as highly discriminatory. This difference was also correlated with grade; officers and higher enlisted grades of both races tended to see the race problem as less serious than did the lower enlisted grades. The 1972 results were essentially replicated in 1974, in spite of the existence of an all-volunteer army and an increase in the number of Black enlisted individuals. In 1978, Hiett and Nordlie concluded in their study on the unit race relations program in the Army that despite the relative absence of overt interracial violence, race-related tensions persist and, in fact, may be growing. They found that, while the frequency of openly hostile types of behavior is low, the overall quality of race relations is somewhere between "good and fair."

In perhaps the only longitudinal study of racial climate ever conducted in a large military unit, O'Mara (1977) obtained approximately 5% random samples of the personnel of the 7th Infantry Division at Ft. Ord at two time periods: 1975 and 1976. Using the Racial Perceptions Inventory, O'Mara reported that the racial climate appeared to degrade over the 12 months of the study. Unfortunately, no data on possible intervening events was presented so that one could begin to ascribe reasons for the change. Nevertheless, the study is interesting due to its longitudinal emphasis.

In a recent survey conducted by the Army (Soldiers Report IV, 1986) there were differences (although level of significance was not reported) between minorities and Whites, and between enlisted and officers, on such items as "race does not influence whether a soldier will get a fair deal," and "command does not ensure that soldiers have equal opportunity for promotion."

The Racial Attitudes and Perceptions Survey (RAPS) was developed and validated as a way of measuring racial attitudes and perceptions between Blacks and Whites (Hiett et al., 1978). Results of administering the instrument to the Army, Air Force, Marine Corps, and Navy indicated Blacks perceived more racial discrimination than Whites, that Whites felt the racial climate in the military was more favorable, and both Blacks and Whites favored racial interactions.

In one of the few efforts to assess the relationship between racial climate and unit effectiveness, Griesemer (1980) found significant correlations between the racial climate and unit effectiveness. Positive perceptions of racial harmony were associated with positive perceptions of unit effectiveness. In analyzing the causal flow between these variables, it was found that for most of the scales the direction was from unit effectiveness to improved racial climate. Only one scale, that of perception of overall racial climate, was shown to lead to unit effectiveness.

Sexual discrimination can be viewed as an aspect of equal opportunity climate. Such discrimination may be seen as consisting of two separate but overlapping issues. One takes the form of more overt sexual harassment as exemplified in the offer of career advancement in exchange for sexual favors. The other issue (the perception of women as less competent than men) is much more covert and may possibly be even more damaging to the equal opportunity and treatment of women. In a survey of 104 Navy women (Reily, 1980), almost all had experienced sexual harassment in their careers, with lower grade enlisted women harassed the most. The data indicated that sexual harassment negatively affected the attitude of the female service member, as well as her desire and intent to re-enlist.

There is some evidence that supports the expectation that perceptions of equal opportunity climate may differ by race and gender. Spicher (1980) found that perceptions of equal opportunity treatment differed between men and women in the military. Men and women differed significantly on 14 of 23 factors in the *Organizational Assessment Package*. Men had a more favorable perception than did the women on 78% of the significant factors. Officers had a higher mean level in all 14 significant factors.

In summarizing the findings on climate and racial and sexual discrimination in the military, several points can be made: (a) There were often differences in perception of climate between races, between sexes, and between ranks; (b) There has been a primary focus on racial discrimination, particularly discrimination against Blacks; and (c) There is a need to define and measure equal opportunity climate and assess relationships between it and other organizational variables.

While providing a wealth of information regarding climate and race relations in the military, previous efforts at instrument development have some serious drawbacks as measures of equal opportunity climate as defined earlier. The Racial Perceptions Inventory (Borus, Fiman, Stanton, & Doud, undated); the Racial Attitudes and Perceptions Survey (Hiatt et al., 1978), the Navy Human Relations Questionnaire (Stoloff, 1972); and the Enlisted Personnel Questionnaire on Race Relations in the Army (Nordlie & Thomas, 1974) all focused on race relations, mainly between Blacks and Whites. That focus now needs to be expanded to include the effects of sexual discrimination and harassment, as well as discrimination against other racial/ethnic

minorities. These instruments asked respondents for their attitudes, feelings, and opinions regarding race relations and the climate of their location. None of them focused on actual behavioral incidents and therefore it is unclear just what is the referent of each item. In addition, for the most part, they did not examine the relationships between race relations climate and organizational outcomes. Further, the use of agree-disagree Likert response scales may be problematic since the person by indicating agreement may be saying nothing about the frequency of the behaviors underlying the item. Thus, we may really be measuring the individual's affective reaction to any kind of discriminatory behavior and not be relating such reaction to the frequency of the actions. Clearly, more methodological precision is needed. In an effort to obviate these problems, Landis and his colleagues developed the Military Equal Opportunity Climate Survey (MEOCS) under contract with the government and with the assistance of the DEOMI (Landis & Fisher, 1987; Fisher, 1988; Landis, Fisher, & Dansby, 1988a; Landis, Fisher, & Dansby, 1988b).

Development of the Military Equal Opportunity Climate Survey

1. Model and definition

The initial research was conducted at the Defense Equal Opportunity Management Institute (DEOMI) at Patrick Air Force Base, Florida. DEOMI provides a 16-week training course in equal opportunity and treatment for members from all military services and therefore provided an excellent site for instrument development due to the presence of a highly committed and knowledgeable staff.

The conceptual model that we used (see Landis & Fisher, 1987; Fisher, 1988) suggests that an organization's equal opportunity climate is the summation of a set of cognitive operations made by people in the organization. These operations start from a matrix of past experiences supplemented by expectations of potential behaviors which may be experienced in that organization. In other words, people become aware of behaviors which occur to others and those events produce a set of expectancies. Those expectancies increase or decrease the awareness and interpretation of what may be called "equal opportunity behaviors" and the leadership response to those actions. Based on the awareness of the behaviors--and some judgment as to their importance--the expectancies are confirmed or disconfirmed and the EOC of the organization is categorized along some dimension. Finally, we hypothesize that the result of this process has effects on how the person views his/her personal commitment to, and satisfaction with, the institution. This model has some similarity to that proposed by Rothbart and John, (1985) except that our approach deals with the *sequelae* of equal opportunity "contacts" as well as the behavior of the leadership in an organization. Nevertheless, both the

Rothbart and John and our models have their origins in social category theory as applied to contact between people of different racial/ethnic groups.

Further, EOC is visualized as the result of several cognitive structures, or schemata, which have antecedents in the individual's past history as well as in environmental events. Schemata consist of a framework for tying together the information about any given event (Norman & Bobrow, 1975). Schemata can activate procedures capable of operating upon local information and a common pool of data. For the most part social psychologists who have used the term schemata have viewed them as subjective "theories" about how the social world operates. These "theories" are derived from generalizing across one's experiences with the social world. Schemata may be internally or externally activated. That is, they can be activated by some aspects of the stimulus information in the environment (person, event, message situations, or response requirements). They may be internally activated by information or goals that the perceiver generates or by schemata already active at a given moment, apart from what is directly implied or required by the situation. Once activated, these schemata become ongoing information processing units that allow the perceiver to provide structure and to achieve meaning and understanding. Schemata may influence behaviors in at least four ways: (a) They influence what information will receive attention and how it will be encoded and organized; (b) They have a selective influence on retention, retrieval, and the organization of memory; (c) They function as interpretive frameworks and influence evaluations, judgments, predictions, and inferences; and (d) They influence overt behavior (Markus & Zajonc, 1985). The relevance here is that the schemata of "equal opportunity climate" originate in the past experiences of the individual, which on the one hand develop from experiences with certain actions of others, and on the other hand, are reinforced by similar actions in the current organization.

From the conceptual model, a working definition of (positive) EOC was derived:

Equal Opportunity Climate is the expectation by individuals that they will have equal access to opportunities, responsibilities, and rewards within an organization. It is also the expectation that these opportunities, responsibilities, and rewards will be accorded on the basis of a person's abilities, efforts, and contributions; and not on race, color, sex, religion, or national origin (Landis & Fisher, 1987, p. 8).

It is to be emphasized that this definition explicitly eschewed the idea that climate exists separate from the perceptions and attitudes of the members of the organization. It is

also assumed that the judgment that the individual makes with regard to the level of EOC may or may not be based on the actual witnessing of relevant behaviors.

2. Preliminary Studies

The first step of the development process was to obtain a set of behaviors that knowledgeable people felt would be indicative of the equal opportunity climate of the organization. Using a critical incident approach, we obtained 111 descriptions from the staff of DEOMI (Landis & Fisher, 1987). The DEOMI staff was used in the belief that this group would be sensitive to the often subtle events which lead to an organization being seen as having a particular level of EOC. After eliminating redundancies (as well as adding behaviors which we felt had not been well covered), the final set consisted of 71 behaviors.

The next issue considered was the design of the response category. Such a dimension had to reflect the expectancies of the occurrence of the problematic behaviors. Accordingly, the response category used asked respondents to estimate the likelihood that each behavior had occurred during the past 30 days at his or her current duty location. A five point scale was used. This was done for two reasons: (a) There is ample evidence that in asking for probability estimates, 20% interval width is about optimal for most people, and (b) DEOMI has structured most of its evaluation forms around such a format. By adopting this format, we were able to use already existing response forms and reduce possible confusion on the part of the respondents.

In order to test the MEOCS format for discriminant validity, two hypothetical locales were devised. Information was provided on each locale along six dimensions which were taken from the management indexes used by the United States Air Force to assess the level of human relations climate (Air Force Pamphlet AFP 30-13, issued 21 January, 1985). These dimensions dealt with such issues as levels of Articles 15 for minorities and Whites, and various kinds of discrimination complaints for minorities, women, and majority personnel. The locales were described on each dimension as having "an above average rate" or "a significant change from the previous year" for the "poor equal opportunity climate locale." For the "good" locale, the descriptors were "a below average rate" or "a significant reduction from the previous year" on each dimension.

The construct validity of this preliminary version of MEOCS was assessed by a principal components analysis. Six factors were retained and rotated to simple structure using a varimax procedure. These factors, which together accounted for 65% of the total variance, tapped aspects of EOC: (a) An overall concern with equal opportunity issues (these items dealt with both race and sex discrimination primarily in an on-duty-station environment); (b) Differential behavior of commanders (containing items focusing on persons in authority treating racial/cultural/gender minorities differentially than

majority persons); (c) Stereotypic behavior (items dealing with minorities and women being treated in a stereotypic fashion); (d) Sex-role definition (in which it is implied that the military is a masculine profession); (e) Overt sexual harassment (items centering on superiors using their position to demand sexual favors of subordinates); and (f) Covert sexual harassment (items in which it is suggested that a woman's role is to be subordinate to men). The reasonableness of this structure lends some support to the construct validity of MEOCS.

MEOCS, at least in the preliminary version, was found to exhibit reasonable levels of inter-item and split-halves reliability. The Cronbach alpha over all items was .98 and for two random halves .96 and .97, respectively. The six scales were also highly reliable (alphas of .95, .93, .91, .87, .86, .88, respectively). The correlation between the two halves is .88. All of the above analyses were based on a small n of 74. On the second administration, the reliability of the six scales continued to show a satisfactory level of reliability (.92, .93, .86, .84, .89, .87, respectively). When the target was changed to the constructed locales, the reliability of the scales remained quite good (.94, .93, .91, .82, .85, and .76, respectively).

Construct validity was further evaluated by assuming that if MEOCS measured EOC as we have defined it, there should be significant differences as a function of the constructed locales. A MANOVA was performed using type of "locale" as the independent variable and the six scales as criteria. The Multivariate F was highly significant ($Mult F = 3.46, df = 12, 104, p < .0001$) as were the univariate tests for five of the six scales. The "Overt Sexual Harassment" (Scale V) was non significant. As well, the cell means were all in the expected direction.

The results summarized above indicated that MEOCS would seem to have both high initial reliability and construct validity. It also appears to be sensitive to changes in the external world, the exact range of which will need to be investigated.

In a second study investigating the impact of organizational locus on equal opportunity climate and other organizational variables, Fisher (1988) expanded on the research described above. Once again, her study used members of a DEOMI class as respondents. This study had three aims: (a) to replicate the factorial structure of MEOCS; (b) to investigate the relationship of equal opportunity climate to other indices of organizational functioning; and (c) to probe the effect of organizational locus on equal opportunity and organizational climate. In approaching these goals, we first had to select items for measuring aspects of organizational functioning.

Items tapping organizational functioning were taken from two sources: (a) Work-group effectiveness--15 items from the United States Air Force Organizational Assessment Package (Short, 1985) were selected. These items had high loadings on a factor labeled

"Work-Group Effectiveness" and "General Organizational Climate." For a description of the standardization process used in the OAP, see Short, (1985); (b) Organizational Commitment--15 items from the questionnaire designed by Mowday, Steers, and Porter (1979) were selected and rewritten to conform to a military situation; and (c) Job Satisfaction-- 6 items, also from the OAP, were used which comprised the "Job Related Satisfaction" factor. All of the above measures have reported reliabilities above .80.

Fisher manipulated climate by applying the same variation described above to either the "unit" level--base, post, or ship--or to the "work group level." Using all possible combinations of the organizational locus variable, four unique sets were possible (ideal overall climate, ideal work group climate, ideal overall climate, poor work group climate). And, by further counterbalancing the order in which the overall versus work group manipulation was presented, we controlled for the effect of order. This gave us eight unique questionnaires.

Each questionnaire consisted, then, of the two manipulations, the 71 MEOCS items, presented twice (once for each locus), and the commitment, satisfaction, effectiveness, and general organizational climate sections (also presented twice). The work group effectiveness items were presented only after the work group manipulation.

Fisher's results were quite interesting and will only be summarized here.

1. There were no significant order effects. That is, it made no difference which organizational locus was presented first in the questionnaire.

2. There were no interaction effects across organizational loci for the MEOCS items. That is, the overall manipulation was highly significant in each case, *only when the data came from the overall manipulation*. Manipulations at the work group level were ineffective. The reverse occurred when the data were obtained from the work group manipulation. Here changes at the overall level had no effect. In other words, with regard to equal opportunity climate, as measured by MEOCS, changes at one level had no effect on the other locus. Further, the changes at each level for each factor were about the same. We should also note that the "unit level" data constitute a precise replication of the first study. The results were quite similar with the exception that now Factor V--Overt Sexual Harassment--was significantly different across the two climate situations.

Further evidence of the independence of the two organizational levels came from a second order factor analysis performed on the results of two principal components analyses. One of these analyses was done on the data obtained at the overall level, and

the other used data from the work group. The six respective MEOCS factors were uncorrelated across levels.

Supporting evidence for the lack of interdependence come from a series of multiple regressions performed using the organizational variables as criteria and the MEOCS factors as predictors. The results indicated:

1. Each criterion (e.g., organizational climate, satisfaction, commitment) was significantly related to at least one MEOCS factor, only at its own level. The adjusted R^2 ranged from .498 (for climate at the unit level) to .867 (for climate at the work group level).

2. When the predictors and the criterion levels were crossed (i.e., criteria from the work group level were predicted by variables at the unit level), no significant relationships with one exception resulted. Within the poor unit level, organizational climate was predicted by the variables of *stereotyping* and *satisfaction* at the work group level.

3. Two of the MEOCS variables were consistently found to be significant predictors: Factor III (Stereotypes) and Factor VI (Covert Sexual Harassment). Factor III appeared at both levels (indicating a belief that these behaviors--stereotyping minorities and women--damage organizational functioning at both the unit and work group level; Factor VI was a predictor at only the work group level--suggesting that covert sexual harassment is quite damaging at only the work group level.) The difference between these two MEOCS factors lies in the intimacy of their actions. More intimate actions would not only be more evident in a smaller group, but more damaging to smooth working relationships.

4. There was a significant interaction as a function of organizational level for all of the organizational variables. Here it appears as though changes at the work group level are much more potent than the comparable changes at the unit level. Indeed, for organizational climate, the effect is on the order of 40%.

Four of the original six MEOCS factors were replicated in the Fisher study. The items loading on the sex harassment factors tended to coalesce into a single dimension. Whether sex harassment is a unitary or multi-dimensional concept will have to be investigated with other samples and locales.

The present study: Questions and hypotheses

It seemed clear that MEOCS showed promise of acceptable reliability and validity. However, the samples upon which it was tested were small and shared a belief in the saliency of equal opportunity issues. Thus, the high reliability and, consequently, the possibility of validity, might be due to subjects responding as they have been taught to react at DEOMI--the military's training installation for equal opportunity and race relations advisers. Further, the possibility exists that many of the items might contain situations and terminologies which are not familiar to personnel in the field. Therefore, it was deemed necessary and desirable to conduct a field test in which the following issues could be addressed:

1. Would most personnel find the items readable? That is, were terms included which were outside of the experience of many personnel?
2. Would most personnel find the situations being described familiar? And, are there any other situations which should be included?
3. Were the situations and wordings service neutral? That is, were there any terms included which were unique to one particular branch of service?
4. Was the response scale understandable and acceptable? The DEOMI curriculum includes a substantial amount of social science methodology. Thus, students at DEOMI may feel quite comfortable with different response formats, a situation which might not exist for personnel with different backgrounds.

Assuming that these questions could all be answered in the affirmative, it was next important to assess the reliability and construct validity of the measures. In doing so, we formulated a number of working hypotheses:

1. MEOCS would prove to be multi-dimensional. Significant factors would reflect issues of sexual harassment as well as differential behavior of commanders. We made no assumptions about the number of factors, only that at least two would emerge.
2. The reliability of each MEOCS factor would be stable across race and sex groupings.
3. Each MEOCS factor would be related to a corresponding factor from a modified version of the Racial Attitudes and Perceptions Survey (Hiett, et al., 1978). And, further, that such factors would also be significantly related to organizational outcomes.

4. Race, sex, and rank would show significant and expected effects on MEOCS factors. That is, sex would have the most potent impact on sex harassment factors, while race would be implicated in the differential command behaviors dimension. To the extent that positive behaviors constitute a significant factor, we would expect that officers would see such behaviors as more probable than enlisted personnel. This formulation is derived from the idea that officers would see such behaviors as quite normative for themselves, while such would not necessarily be true at the enlisted levels.

If the above four expectations are fulfilled, we could reasonably conclude that MEOCS has reasonable reliability, stability and construct validity.

Method and Procedure

Sample

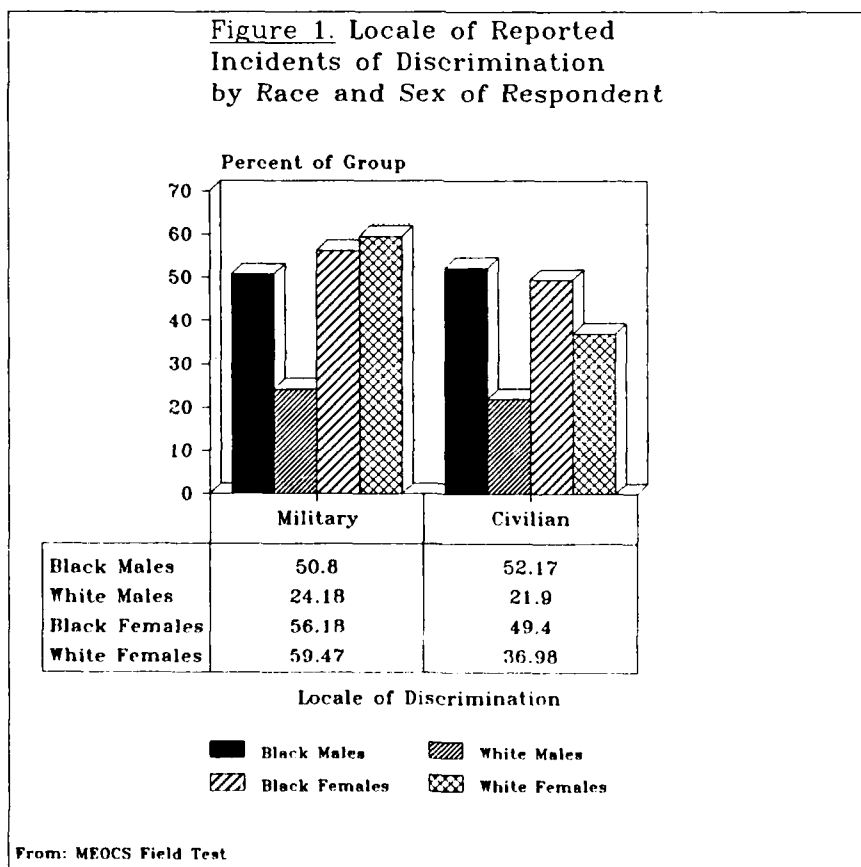
Six sites were selected for the field test: one each from the Army, Navy, Coast Guard, and Marines and two from the Air Force. The first Air Force site was used to test administrative procedures for the total field exercise. The sites were selected on the basis of the latest race-sex-rank population figures available from DoD. Some 5-15 sites from each service were considered with the final six selected on the basis of (a) representativeness (i.e., the site was representative of the overall mission of the service branch), and (b) minority representation (i.e., the site had at least 25 individuals in each of the eight cells representing the combinations of race (Black-White), sex (Male-Female), and Rank (Officer-Enlisted). In addition, one site of the six was deliberately selected outside of the continental United States.

A project officer at each site was asked to provide personnel meeting sample specifications determined by the investigators. These samples were defined using the minimum sample procedures outlined by Creech and Grandy (1973) and extended via a computer program (MINIMUM.EXE) by Bell and Landis (1989). The *a priori* specifications included: (a) a 90% confidence level, (b) a 10% precision level, (c) a questionnaire of 138 items (see below), (d) a 5 point response scale (i.e., a valid answer is likely by chance 20% of the time), and (e) the population figures for each pay grade within each rank-sex-race combination at each site. The application of these procedures gave a desired sample size of between 350 and 650 for each site. These sampling frames were sent to each project officer (Point-of-Contact--POC) and adjustments subsequently made based on sample availability.

The final sample consists of 1650 personnel of the characteristics as shown in Table 1. These personnel are distributed across the five services as shown in Table 2. The race-sex-rank distribution differs significantly ($\chi^2 = 1748.27$, $df = 7$, $p < .001$) from the characteristics of DoD as a whole. However, inspection of the expected frequencies indicates that all categories except *White Male Enlisted* are over-represented. Given the purpose of this project (to examine the construct validity of a measure of equal opportunity climate), such over-representation was desired.

The final sample is not a probability sample, but rather a judgment sample selected for the specific purposes described earlier. The results of the field study should be considered valid for the purposes of survey development and validation; however, specific results are not necessarily generalizable to any particular service or to the Armed Forces overall.

The sample consists of individuals who report a rather large amount of experience as targets of discriminatory behaviors. Figure 1 indicates that over half of the Black males report discrimination against them in both the military and civilian environments. The comparable figure for White males is less than half of the Black male level. Levels of discrimination reported by females are even higher reflecting, perhaps, that these groups face sexual as well as racial adverse treatment. The highest level in the military environment is reported by White females, who also face comparatively lower levels of discrimination in the civilian situation, a finding that suggests that this group is most at risk to leave the military because of discrimination.



The relatively large proportion of personnel obtained from the Air Force is due to the use of two sites. The relatively small number of participants from the Coast Guard can be ascribed to the large number of vessels at sea during the data collection period. Nevertheless, the sample is still adequate for the validation purposes of this project.

Table 1

Race, Sex, and Rank Characteristics of Sample

<u>Group</u>	<u>Number in Sample</u>
White Female Officers	109
Black Female Officers	37
White Male Officers	226
Black Male Officers	80
White Female Enlisted	229
Black Female Enlisted	214
White Male Enlisted	376
Black Male Enlisted	357
Unknown	22
Total:	1650

Table 2

Sample Characteristics by Branch of Service

<u>Branch of Service</u>	<u>Number in Sample</u>
Air Force	607
Army	445
Navy	313
Marines Corps	163
Coast Guard	97
Unknown	<u>25</u>
Total	1650

Questionnaire design:

The survey (Appendix A) consisted of the following six parts:

1. Commitment to the service: A modified version of the Organizational Commitment Questionnaire (OCQ Mowday, Steers, & Porter, 1979) was used. The original OCQ contained 15 items, while the present version used 12 items and reworded them to be related to the military environment. In addition, a separate version of the questionnaire was prepared for each branch of service, the only difference being that the respondent's service was named (e.g., "For me, the *Air Force* is the best of all possible organizations"). Mowday, Steers, and Porter (1979) reported Chronbach alpha levels of between .82 and .90 as measures of scale reliabilities.

2. Job satisfaction: Six items, taken from the Organizational Effectiveness Package (Short, '85) developed within the Air Force, were used. These items are

similar to those included within the Job Description Index (Smith, Kendall, & Hulin, 1969). Schneider and Snyder (1975) reported individual item reliabilities between .80 and .88, while Short (1985) reports alphas of .83 (first administration) and .90 (a five-week later administration).

3. Work group effectiveness: Five items were adapted from the OAP (Short, 1985). Alphas in the Short (1985) study were reported as .89 and .91.

4. Modified Racial Attitudes and Perceptions Survey (MRAPS): Twenty-seven items were taken from RAPS 2--a factorially derived version (O'Mara & Tierney, 1978) of the Racial Attitudes and Perceptions Survey (Hiett, McBride, Fiman, Thomas, O'Mara, & Sevilla, 1978). These items were rewritten to (a) remove service specific references, (b) remove minority group specific reference (e.g., "Black" was changed to "minority"), and (c) remove sex specific references where they occurred. Hiett, et al., 1978 (see Day, 1983, and Landis, Hope, & Day, 1984, for summaries of this research) had found 4 factors in the original RAPS: (a) Perceived Discrimination Against Blacks, (b) Attitudes toward Racial Integration, (c) Feelings of "Reverse" Racism, and (d) Racial Climate. O'Mara and Tierney (1978) reported alphas of between .55 and .88 for the four factors. Responses were on a 5 point (agree-disagree) Likert scale.

5. Military Equal Opportunity Climate Survey (MEOCS): Eighty-eight items based on those developed by Landis and Fisher, 1987 (and reported in Fisher, 1988, Landis, Fisher, & Dansby, 1988a; and Landis, Fisher, & Dansby 1988b), were included in this section. These items were originally elicited from staff and students at the Defense Equal Opportunity Management Institute (DEOMI) during the summer of 1987 under the instruction to provide "behaviors which would affect the equal opportunity climate of a base, post, or ship." The original set of 71 items were further refined by the present project staff and new items (primarily behaviors representative of "positive actions") were added. Responses were on a 5 point scale in which the subject estimated the likelihood of the behaviors occurring during "the previous 30 days at your post, base, or ship" (i.e., from "a very high chance" to "almost no chance").

6. Demographic information: Nineteen items were constructed covering the respondent's race, sex, rank, pay grade, educational level, age, branch of service, experience with discrimination (military or civilian), relationships with other cultural/racial groups, and a global judgment of the equal opportunity climate at the data gathering site.

Procedure

The 6 sections of the questionnaire were combined in the following order to make up the survey package: *MEOCS, Commitment to the Service, Work-Group Effectiveness, Job Satisfaction, MRAPS, and Demographics* (see Appendix A). A previous study (Fisher, 1988) had shown that MEOCS was relatively impervious to order effects. Responses were obtained using an optically scored sheet provided by DEOMI. No identifying information was requested and answer forms were given directly to a member of the research team during group testing. The confidentiality of the data was stressed so as to obtain truthful and candid data. It was emphasized that the present exercise was directed at instrument development and not to produce changes in the respondent's unit.

The data were gathered from groups of respondents which varied from 20 to 200 in size and over a period of 1 to 5 days depending on the site. No restriction was placed on the POC as to how respondents were to be selected, except that "it should be as random as possible within the sampling frame." At the end of each day of data gathering, race-sex-rank frequencies were computed and if certain cells seemed to be low (e.g., Black Female Officers), the POCs were asked to make special efforts to raise those numbers. Thus, the sample is purposive rather than random.

In addition, each respondent was given the opportunity to comment on specific terms included in the survey. A 2 x 2-inch "Post-it" was attached to each questionnaire. Respondents were asked to write their comments on the "Post-it." We found this procedure to be more productive than direct interviews after questionnaire administration. The latter approach produced few comments of any type.

Data analyses

The data analyses proceeded in seven steps:

1. Where appropriate, scales were reverse scored.
2. The data were subjected to a Multivariate Analysis of Variance with branch of service as the independent variable and all of the dependent measures. The *F*s were all nonsignificant. Thus, it was justified to collapse over service branch for all following analyses.
3. The Job Satisfaction, Commitment, and Work Group Effectiveness measures were factor analyzed to verify unifactor structure. All such analyses were successful, thus replicating the findings of Short (1985). Chronbach Alphas were

computed as an indicator of scale reliability. Items were then averaged for each variable resulting in a single score for each measure.

4. The Modified Racial Attitudes and Perceptions Survey was subjected to a principal components analysis with squared multiple correlations in the diagonal. Three significant factors were obtained, accounting for 100% of the common variance and rotated to simple structure using the varimax procedure. Chronbach alphas were computed for each factor. Finally, factor scores were computed by unit weighting across high loading items.

5. A similar procedure to that described under (3), above, was followed for the Military Equal Opportunity Climate Survey. Five factors, accounting for 85% of the common variance, were extracted and rotated using the varimax procedure. Alphas were computed for each scale and factor scores calculated using unit weighting of the high loading scales for each dimension.

6. The data were then subjected to a Multivariate Analysis of Variance (MANOVA) with the three organizational variables (commitment, satisfaction, work group effectiveness), three factors of the MRAPS (Discrimination Against Minorities, Perceived "Reverse" Discrimination, and Feelings about Separatism), and the five MEOCS factors (Sexual Harassment/Discrimination, Differential Command Behaviors, Positive Command/Social Behaviors, Overt Racist/Sexist Behaviors, and "Reverse" Discrimination Behaviors) serving as dependent measures. Race, sex, and rank (officer versus enlisted) served as independent variables. Significant univariate effects (where there was a significant multivariate effect) were further investigated by Duncan Multiple Range Tests.

7. In order to investigate the causal relationships among the variables, a path analysis on standardized variables (with Mean = 0 and SD = 1) was performed. Nominal variables (e.g., sex, race, and rank) were dummy coded and standardized. In this analysis, the antecedents of commitment were first determined. Then for each of the significant antecedents, the remainder of the variables were entered. Where there were two or more antecedents, the one with the greatest standardized beta weight was analyzed first. This procedure was followed until all variables had been entered into the model.

Results

Reliability of organizational variables

Commitment to the service: Table 3 gives the reliability coefficients for the total sample as well as by subgroups of interest (e.g., males, females, Blacks, and Whites).

Table 3

Reliability of Commitment Scale by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1048	.720
Females	589	.734
Blacks	694	.663
Whites	954	.754
Total	1646	.723

Work group effectiveness: The reliability coefficients are shown in Table 4 by subgroup and total sample.

Table 4

Reliability of Work Group Effectiveness Scale by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1041	.874
Females	587	.894
Blacks	685	.882
Whites	954	.880
Total	1637	.882

Job Satisfaction: Reliability levels are shown in Table 5 separately by subgroup.

Table 5

Reliability of Job Satisfaction Scale by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1046	.800
Females	589	.767
Blacks	688	.800
Whites	955	.780
Total	1643	.789

Factors and reliability of the Modified Racial Attitudes and Perceptions Survey

Three significant factors were obtained using a combination of a scree line and interpretability criteria. Eigenvalues of the factors are 5.72 (61% of common variance); 2.84 (30% of common variance); and .97 (10% of common variance). Nine items defined the first factor (Discrimination Against Minorities); four items had high loadings on the second (Perception of "Reverse" Discrimination); and, three items marked the domain of the third dimension (Feelings Toward Separatism). The items loading on each factor are shown (together with the factor loadings) in Tables 6, 7, and 8.

Table 6

Items loading on Discrimination Against Minorities Factor of the MRAPS
(Factor loadings in parentheses)

113 (.70) More severe punishments are given out to minorities as compared to majority offenders for the same types of offenses.

114 (.77) Whites in charge of minority supervisors doubt the minorities' abilities.

115 (.74) Minorities get more extra work details than Whites.

119 (.62) White males act as though stereotypes about minorities and women are true (for example, "Blacks are lazy").

122 (.68) White males have a better chance than minorities and women to get the best training opportunities.

124 (.69) White males do not show proper respect for minorities and women with higher rank.

127 (.62) White males are not willing to accept criticism from minorities and women.

128 (.78) Whites get away with breaking rules that result in punishment for minorities.

Table 7

Items loading on the Feelings about "Reverse" Discrimination Factor of the MRAPS (Factor loadings in parentheses)

129 (.51) Some minorities and women get promoted just because they are minorities and women.

131 (.58) Minorities and women frequently cry "prejudice" rather than accept responsibility for personal faults.

134 (.54) Minorities and women get away with breaking rules that White males are punished for.

138 (.62) Many minorities act as if they are superior to Whites.

Reliability estimates for each factor were computed for the total group as well as the

Table 8

Items loading on the Feelings toward Separatism Factor of the MRAPS (Factor loadings in parentheses)

118 (.52) After duty hours, military people should stick together in groups made up of their race only (e.g., Blacks only with Blacks, and Whites only with Whites).

120 (.37) Trying to bring about the integration of women and minorities is more trouble than it's worth.

125 (.57) Minorities and Whites would be better off if they lived and worked only with people of their own races.

126 (.50) I dislike the idea of having a supervisor of a race different than mine.

130 (.41) Power in the hands of minorities is a dangerous thing.

Table 9

Reliability of "Discrimination Against Minorities" Factor from the MRAPS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1048	.904
Females	589	.879
Blacks	692	.884
Whites	954	.850
Total	1646	.898

Table 10

Reliability of "Feelings about 'Reverse' Discrimination" Factor of the MRAPS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1049	.721
Females	589	.604
Blacks	692	.604
Whites	955	.704
Total	1647	.686

various subgroups. These estimates are given in Tables 9, 10, and 11.

Table 11

Reliability of "Feelings Toward Separatism" Factor of the MRAPS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1046	.736
Females	589	.653
Blacks	690	.707
Whites	954	.727
Total	1643	.720

Structure and reliability of the Military Equal Opportunity Climate Survey

The principal components analysis revealed five significant factors with eigenvalues of 20.93 (58% of common variance), 4.85 (13% of common variance), 1.85 (5% of common variance), 1.54 (4.3% of common variance), and 1.03 (2.9% of common variance). The items loading on each factor are given in Tables 12, 13, 14, 15, and 16. Inspection of the item content suggests the following names: Sexual Harassment/Discrimination Behaviors (21 items), Differential Command Behaviors (11 items), Positive Command/Social Behaviors (8 items), Overt Racist/Sexist Behaviors (6 items), and "Reverse" Discrimination Behaviors (4 items), respectively. The reliabilities of each factor for each subgroup are given in Tables 17 to 21.

Table 12

Items Loading on Sexual Harassment Factor (Factor loadings in parentheses)

39 (.50) When one of the female staff offered suggestions at a staff meeting, she was consistently ignored, while the suggestions from male staff were considered.

44 (.58) A female supervisor was often mistaken by males for a clerk.

45 (.53) A male officer called a female officer with whom he had only a slight acquaintance, "honey."

50 (.57) A male officer touched a female officer, but never touched male co-workers.

51 (.52) A White enlisted woman who is dating a Black man had crude suggestions made to her by her male co-workers.

58 (.50) A female in the unit was asked not to wear shorts to a sporting event because they were too "sexy."

63 (.60) When a female officer was promoted, a male officer made the comment, "I wonder who she slept with to get promoted so fast."

66 (.62) When a female complained of sexual harassment to her supervisor, he told her, "You're being too sensitive."

69 (.56) The only female in a work group was expected to provide house-keeping supplies, such as needle and thread, aspirin, etc., in her desk.

71 (.52) A male in the unit left *Penthouse* or a similar magazine on his desk where a female co-worker could see it.

73 (.64) A female was asked to take notes and provide refreshments at staff meetings (such duties were not part of her job assignment).

Table 12 (cont.)

79 (.55) The commanding officer told a female officer that he would prefer not to send her on temporary duty because she has children at home, but did not use the same consideration for men.

80 (.63) A better qualified male officer was not picked for a good temporary duty assignment because the commanding officer said it would look better for equal opportunity to have a female officer on this temporary duty.

81 (.58) An officer referred to women subordinates by their first names in public while using ranks for the male subordinates.

82 (.57) A trained female mechanic was assigned to administration; a male trained in administration was assigned to mechanics.

83 (.66) The commanding officer assigned an attractive female to show visiting male officials around because, "We need someone nice looking to show them around."

84 (.58) A military woman who complained of sexual harassment was transferred to another unit.

85 (.58) A majority officer was overheard saying, "A minority person was promoted instead of a better qualified White."

86 (.59) A male enlisted person stated, "Our unit worked together better before the woman was assigned to us."

Table 13

Items Loading on Differential Command Behaviors Factor (Factor loadings in parentheses)

10 (.67) A White officer frequently reprimanded a minority enlisted person but rarely reprimanded a White enlisted person.

16 (.54) A minority person was reprimanded by a commanding officer for dating a same ranked White person of the opposite sex (who is not in their chain-of-command).

18 (.67) A White commanding officer did not recommend promotion for a qualified minority subordinate.

27 (.61) A minority enlisted person was assigned less desirable living quarters than a White.

30 (.58) The commanding officer changed the duty roster when he or she discovered that two Blacks were assigned to guard duty on the same shift.

34 (.61) A commanding officer giving a lecture took more time when answering questions from Whites than when answering questions from minorities.

43 (.50) When reprimanding a Black enlisted person, the White noncommissioned officer used terms such as "boy."

56 (.50) A reenlistment speech to a minority enlisted person focused on the lack of opportunity elsewhere; to a White enlisted, it focused on promotion.

59 (.50) A White officer went over the work of a minority subordinate in far greater detail than the work of a White subordinate.

65 (.60) A qualified minority lieutenant was denied the opportunity for professional military education by his/her commanding officer. A White lieutenant with the same qualifications was given the opportunity.

75 (.62) A commanding officer gave a minority subordinate a more severe non judicial punishment for a "minor" infraction. A White who committed the same offense was given a less severe penalty.

Table 14

Items Loading on Positive Social Behaviors Factor (Factor loadings in parentheses)

5 (.55) Majority and minority officers were seen socializing together at off-duty locations.

7 (.58) Majority and minority enlisted personnel were seen socializing together at off-duty locations.

19 (.51) When the commanding officer held staff meetings, females and minorities, as well as White males, were asked to contribute suggestions to solve problems.

38 (.60) Majority and minority enlisted personnel were seen socializing together.

49 (.56) Field grade (above O-3) female officers had both males and females as subordinates.

61 (.53) White personnel joined minority friends at the same table in the mess hall/dining facility.

64 (.50) A commanding officer gave the same punishment to minority and White enlisted persons for the same offense.

Table 15

Items Loading on Racist/Sexist Behaviors Factor (Factor loadings in parentheses)

3 (.47) A White military member told several jokes about Blacks and other minorities.

12 (.42) A group of Black and White service people were overheard using the term "Spic."

13 (.42) Graffiti written on the restroom/head walls "put down" minorities and women.

28 (.43) The term "dyke," referring to a particular female military member, was overheard in the mess/dining facility.

67 (-.49) Offensive racial/ethnic names were not heard.

70 (-.51) Racial/ethnic jokes were not heard.

Table 16

Items Loading on "Reverse" Discrimination Behaviors Factor (Factor loadings in parentheses)

4 (.31) The commanding officer did not appoint a qualified White as chief of staff, but instead appointed a less qualified minority.

21 (.38) The commanding officer always gave the less desirable temporary duty locations to men.

31 (.40) Minorities and Whites sit at separate tables in the mess/dining facility.

33 (.43) All equal opportunity staff were either females or minorities.

88 (-.32) At off-duty social activities, minorities and whites were seen socializing in the same group.

Table 17

Reliability of "Sexual Harassment Behaviors" Factor of the MEOCS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1047	.928
Females	589	.928
Blacks	695	.926
Whites	954	.931
Total	1645	.930

Table 18

Reliability of "Differential Command Behaviors" Factor of the MEOCS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1047	.908
Females	588	.893
Blacks	694	.891
Whites	954	.872
Total	1646	.903

Table 19

Reliability of the "Positive Behaviors" Factor of the MEOCS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1048	.780
Females	587	.751
Blacks	694	.750
Whites	954	.759
Total	1648	.770

Table 20

Reliability of the "Overt Racist/Sexist Behaviors" Factor of the MEOCS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1048	.685
Females	588	.690
Blacks	693	.619
Whites	955	.722
Total	1648	.683

Table 21

Reliability of the " 'Reverse' Discrimination Behaviors" Factor of the MEOCS by Group

<u>Group</u>	<u>N</u>	<u>Alpha</u>
Males	1047	.490
Females	589	.500
Blacks	694	.515
Whites	955	.481
Total	1647	.496

Multivariate Analysis of Variance

Table 22 gives the *F*-values from the Multivariate Analysis of Variance which used *Sex*, *Race*, and *Rank* as independent variables, and commitment, job satisfaction, work-group effectiveness, the three factors of the Modified Racial Perceptions Inventory, and the five factors of the MEOCS as dependent variables. All of the main effects had highly significant multivariate main effects, while the interactions were barely significant. Within the univariate analyses, *Race* was highly significant on 10 of 11 variables, and *Sex* and *Rank* were significant 7 out of 11.

Specifically, with regard to MEOCS, *Sex* was a significant main effect on the Sex Harassment, Differential Command Behaviors, and "Reverse" Discrimination factors, while *Race* was significant on all dimensions, and, finally, *Rank* was significant on the Positive Behaviors and Overt Racist/Sexist Behaviors factors.

With regard to the MRAPS, *Sex* had a significant main effect on Factors I (Discrimination Against Minorities) and II (Reverse Discrimination), *Race* was significant on all three factors (the above two plus Feelings Toward Separatism), and *Rank* was only significant on Factor III.

Turning to the organizational functioning variables, a somewhat different picture emerges, with rank becoming more important. Here, rank was significant on all three variables, race on Commitment and Work-Group Effectiveness, and sex was marginally significant on only the Commitment variable.

Table 22

F-values for Sex, Race, and Rank on Dependent Variables

Dependent Variables	Independent Variables						
	Sex(SE)	Race(RC)	Rank(RN)	SE X RC	SE X RN	RN X RC	SE X RN X RC
Commitment	5.01*	10.78**	20.92****	.NS	.NS	.NS	.NS
W.G. Effect.	.NS	10.56**	22.88****	.NS	.NS	.NS	.NS
J. Satisf.	.NS	.NS	15.85****	.NS	.NS	.NS	6.55*
MRAPS-I	56.26****	369.99****	.NS	.NS	5.05*	12.80*	4.79*
II	10.90***	45.85****	9.08***	.NS	.NS	8.99**	.NS
III	10.99***	10.20**	7.34**	.NS	.NS	.NS	.NS
MEOCS-I	39.62****	28.39****	.NS	.NS	.NS	8.19**	.NS
II	21.54****	241.78****	.NS	.NS	4.88*	5.39 *	4.97*
III	.NS	72.37****	21.11****	.NS	.NS	.NS	.NS
IV	.NS	13.81***	7.85**	.NS	.NS	5.17*	.NS
V	6.45*	5.11*	.NS	.NS	.NS	.NS	.NS
Mult. F.	16.23****	53.55****	6.31****	2.02*	2.02*	.NS	2.14*

Note: *df* for all univariate *F*s = 1, 1623; for all Multivariate *F*s: 11,1613.

* = $p < .05$

** = $p < .01$

*** = $p < .001$

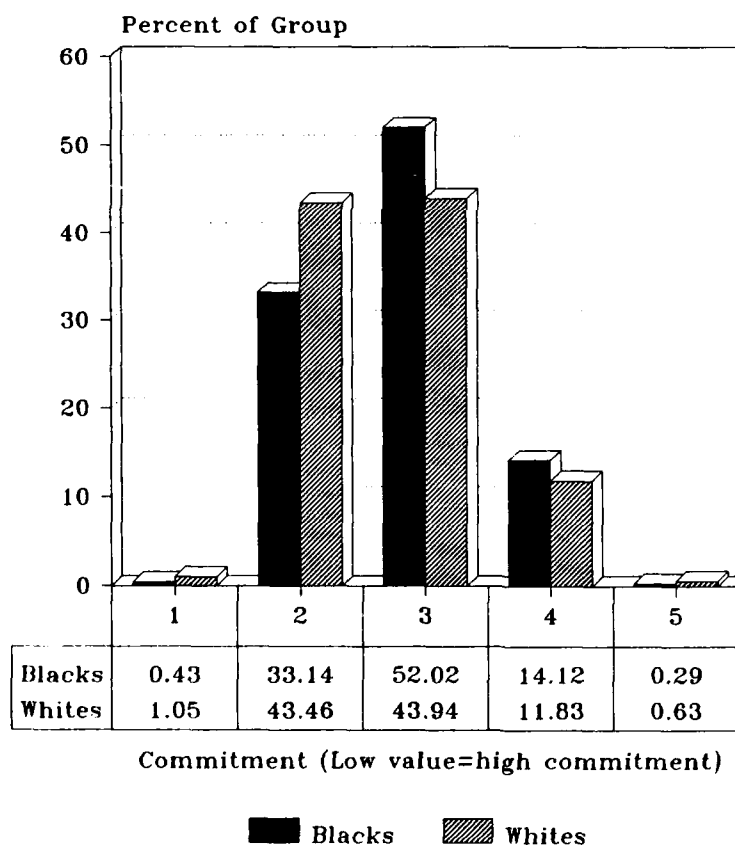
**** = $p < .0001$

.NS = nonsignificant

The univariate effects listed above are more clearly depicted by inspecting the actual distributions of responses (Figures 2-27). These data will be presented in the following order: organizational variables, MRAPS factors, and finally, the MEOCS factors.

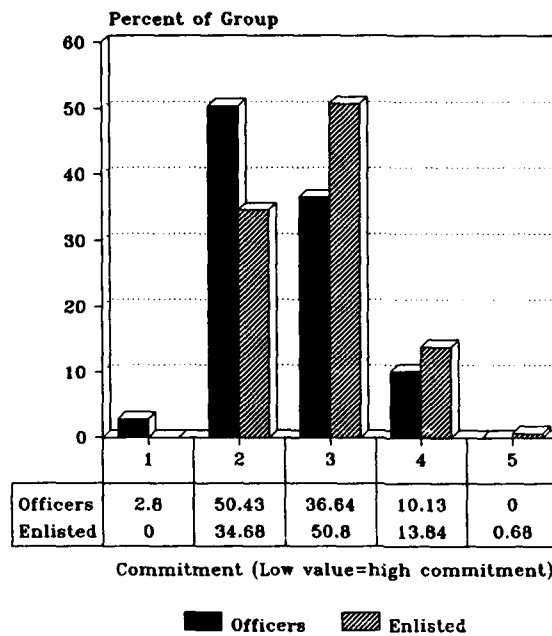
Commitment to the Service: Figures 2, 3, and 4 show that surveyed Whites, males, and officers are more committed to the service than are Blacks, females and enlisted personnel. Specifically, over 45% of the Whites "agree" or "strongly agree" with statements implying a commitment to the service; the comparable figure for Blacks is 33.49%. A similar disparity exists with regard to officers (53.23%) versus enlisted personnel (34.68%). The smallest, yet significant, difference occurs between males (41.46%) and females (37.34%). No interactions between these effects were significant.

**Figure 2. Level of Commitment
By Race of Respondent**



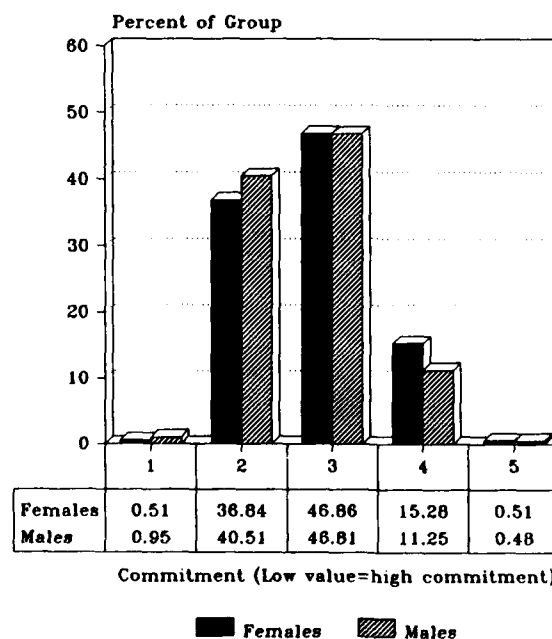
From: MEOCS Field Test

**Figure 3. Level of Commitment
By Rank of Respondent**



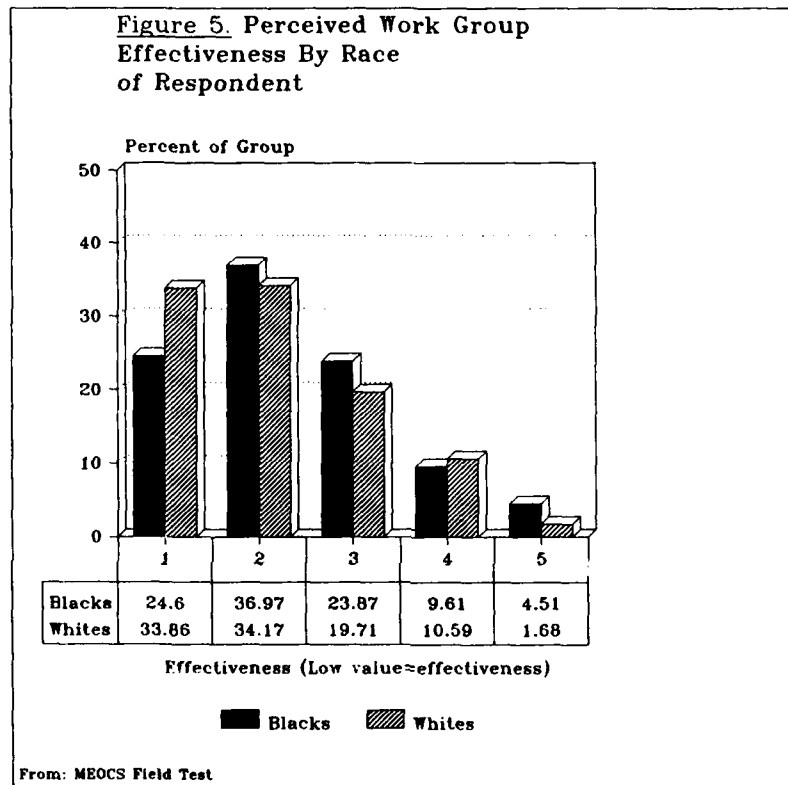
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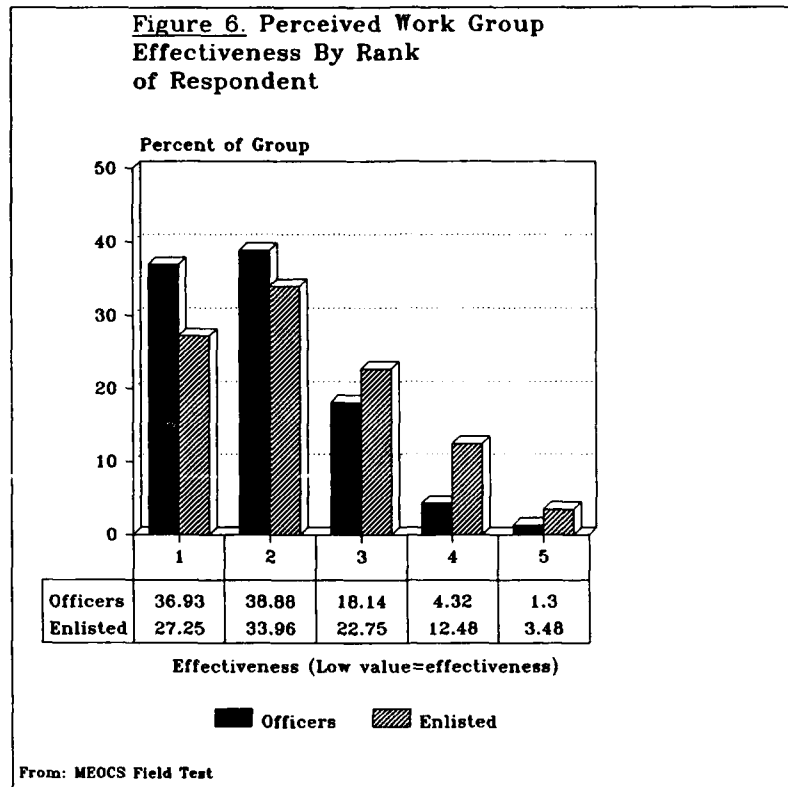
**Figure 4. Level of Commitment
By Sex of Respondent**



From: MEOCS Field Test

Work-group effectiveness: Whites (78.03%) and officers (70.81%) report feeling that their work groups are more effective than do Blacks (61.57%) and enlisted personnel (62.21%). These differences are shown in Figures 5 and 6.



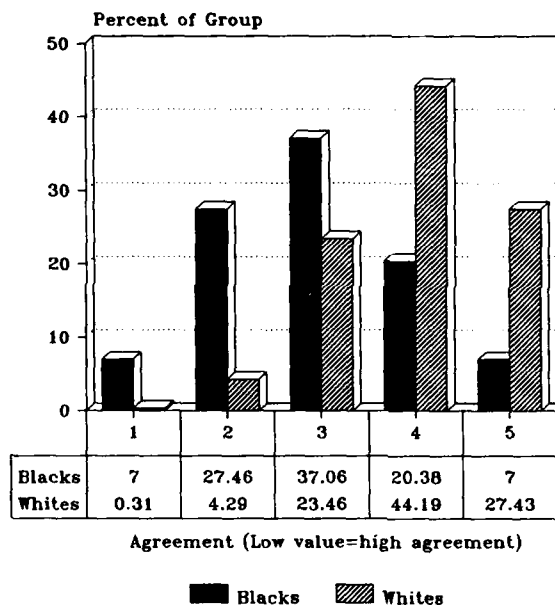


While all groups appear to be equally satisfied with their careers in the service, there is a statistically significant higher level of satisfaction among officers (77.75%) compared to enlisted personnel (63.28%). These data are in line with expectations.

Modified Racial Attitudes and Perceptions Survey. Figures 7, 8, and 9 portray the significant effects from the analyses of the first factor of the MRAPS. Black personnel perceived more discrimination against minorities by a very significant amount (34.46%) over Whites (4.70%). Women also perceive greater amounts of discrimination (21.73%) than do men (14.77%). Figure 9 suggests that within the large racial differences, it is the White officers who see the least amount of discrimination.

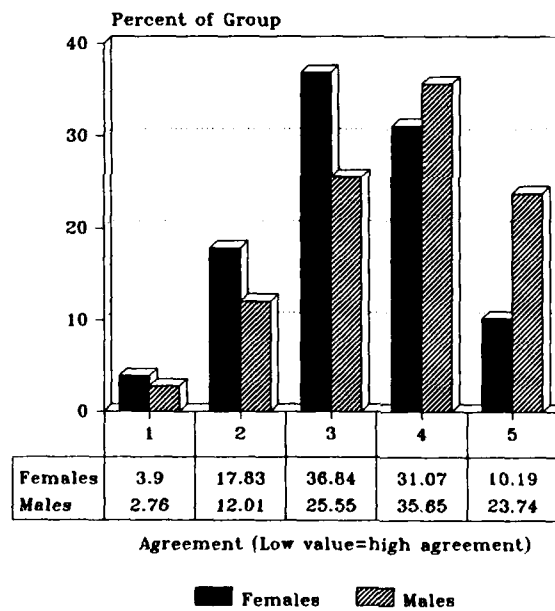
The second factor ("Perceived 'Reverse' Discrimination") reveals that Whites perceive such discrimination more than Blacks (19.8% vs 6.8%, respectively); males perceive such discrimination more than females (16.69% vs 10.36%, respectively); and, finally, these differences are most pronounced within the White enlisted group (see Figures 10, 11, and 12).

**Figure 7. Perceived Discrimination
Against Minorities by Race
of Respondent**



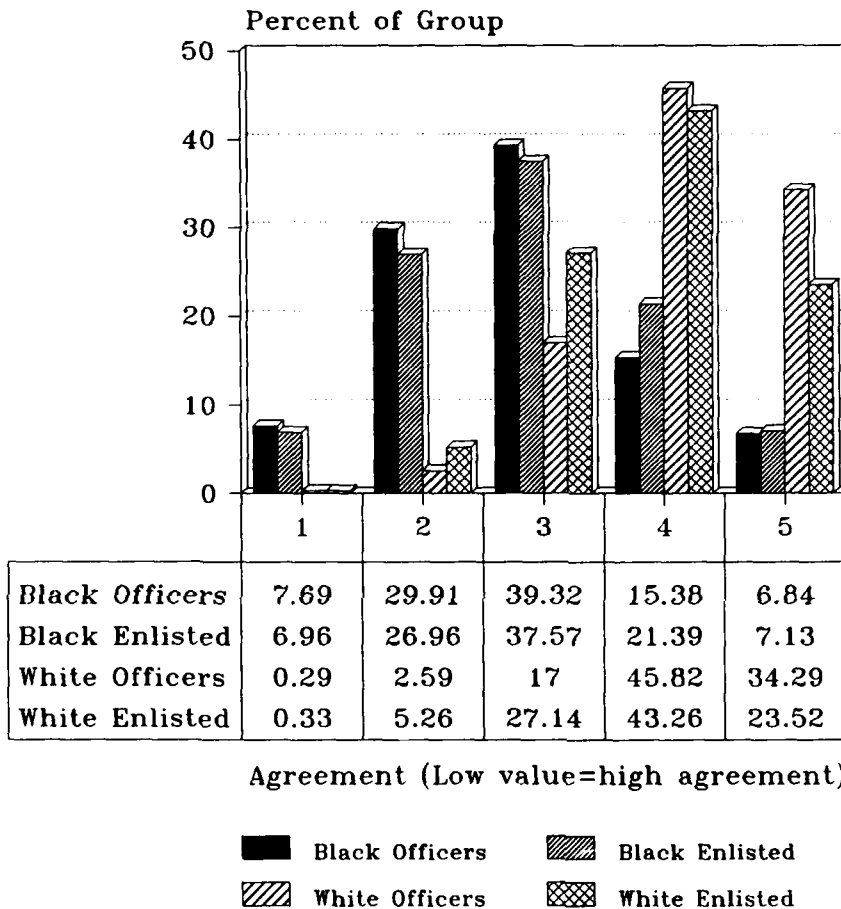
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**Figure 8. Perceived Discrimination
Against Minorities by Sex
of Respondent**



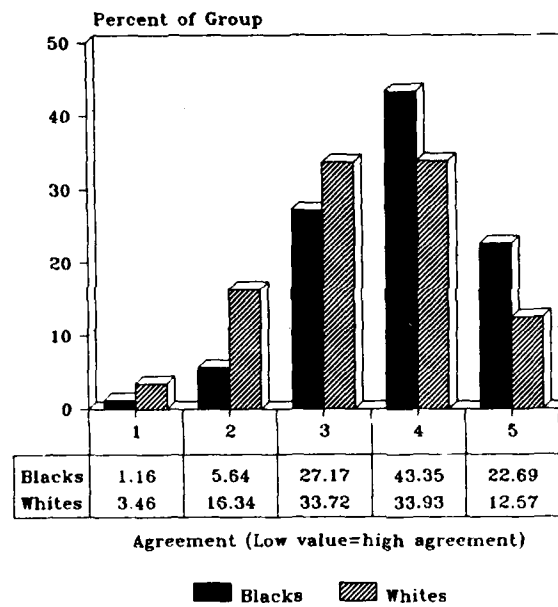
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**Figure 9. Perceived Discrimination
Against Minorities by Race
and Rank of Respondent**



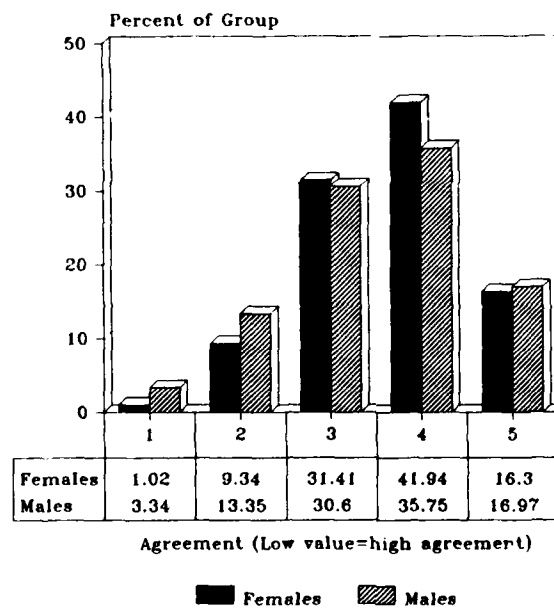
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Figure 10. Perceived Reverse Discrimination By Race of Respondent

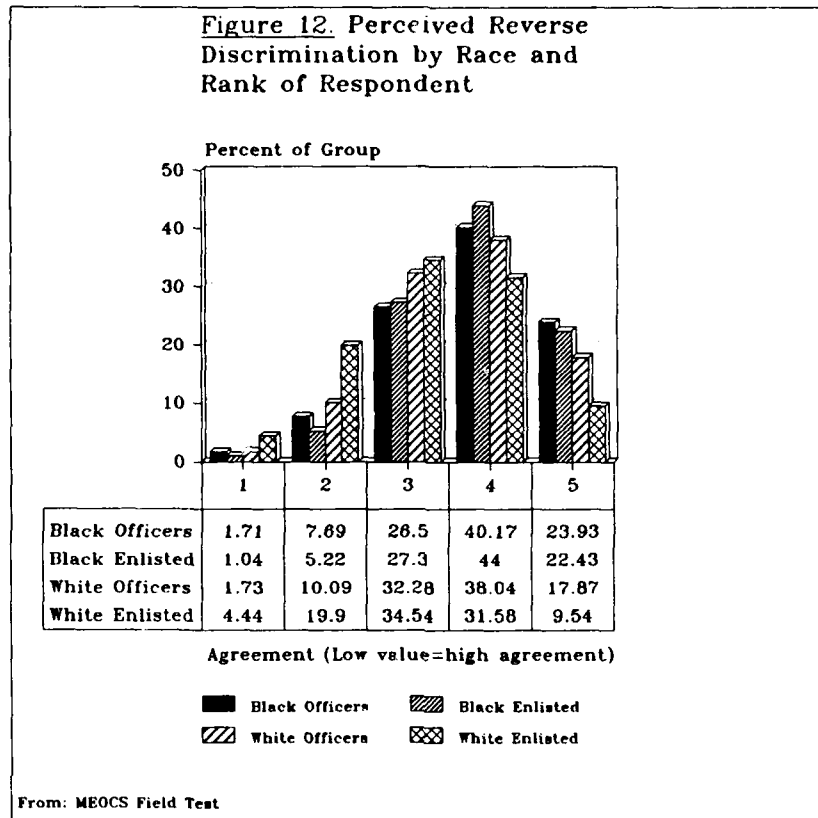


From: MEOCS Field Test

Figure 11. Perceived Reverse Discrimination By Sex of Respondent



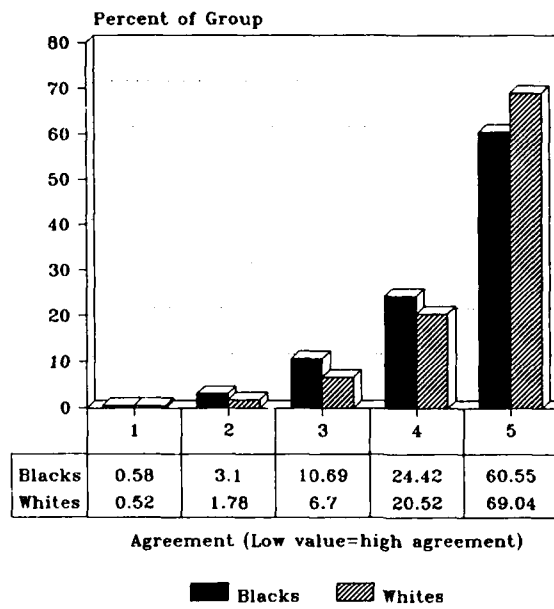
From: MEOCS Field Test



Figures 13 and 14 indicate that Blacks and males endorse more the idea of racial separation (3.68% and 4.00%, respectively) than do Whites (2.3%) or females (1.02%). These differences, while statistically significant, are notable because of the large numbers of personnel who feel strongly supportive of racial integration.

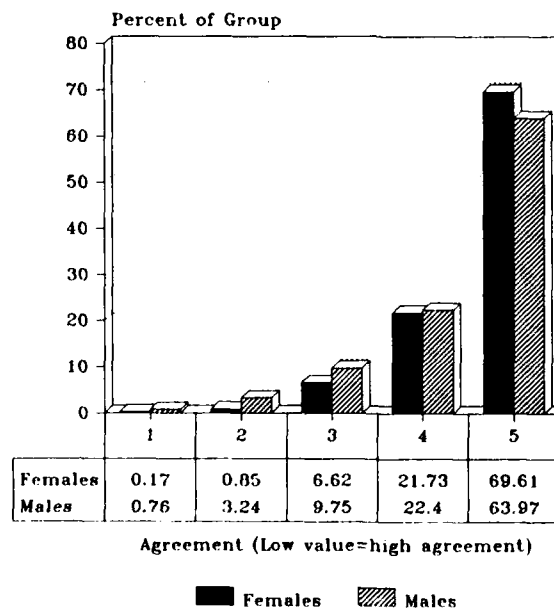
Military Equal Opportunity Climate Survey: On the first MEOCS factor ("Sex Harassment/Discrimination"), females (Figure 15) judged that the referent behaviors were more likely to occur (23.36% estimated that the actions had a "very high chance" or "a reasonably high chance" of occurring) than did males (10.3%). Similarly, Blacks (Figure 16) judged these behaviors as more likely to occur (19.13%) than did Whites (11.72%). Finally, Figure 17 indicates that, within the racial groups, White officers do not feel that these behaviors are as likely to occur.

**Figure 13. Perceived Racial
Separatism By Race
of Respondent**



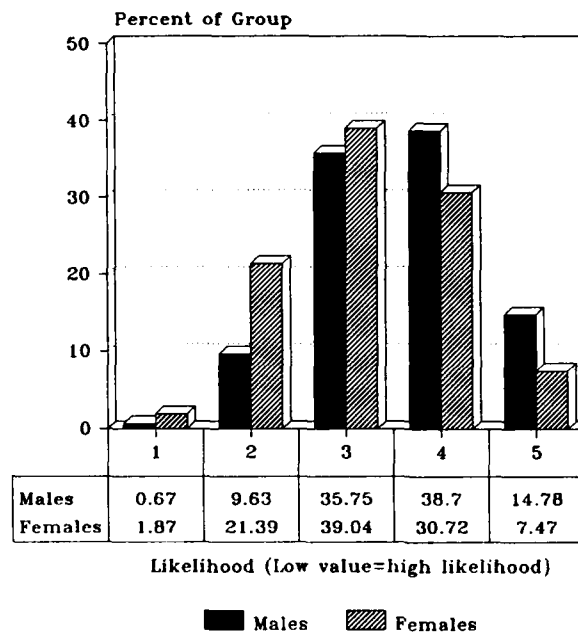
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**Figure 14. Perceived Racial
Separatism By Sex
of Respondent**



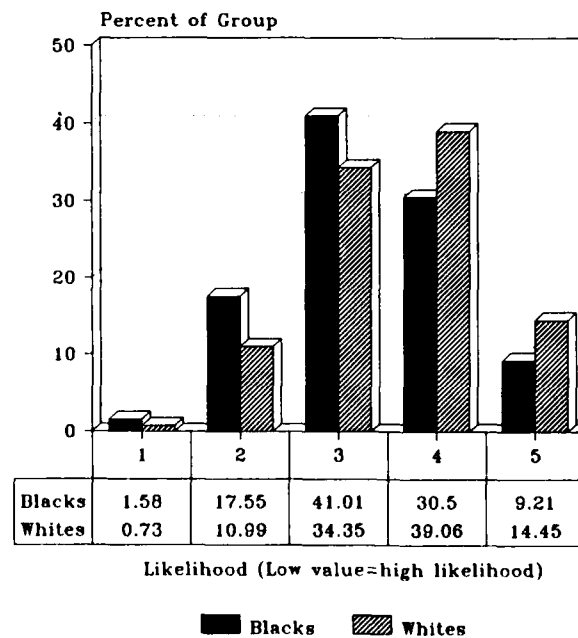
From: MEOCS Field Test

Figure 15. Likelihood of Sex Harassment Behaviors by Sex of Respondent



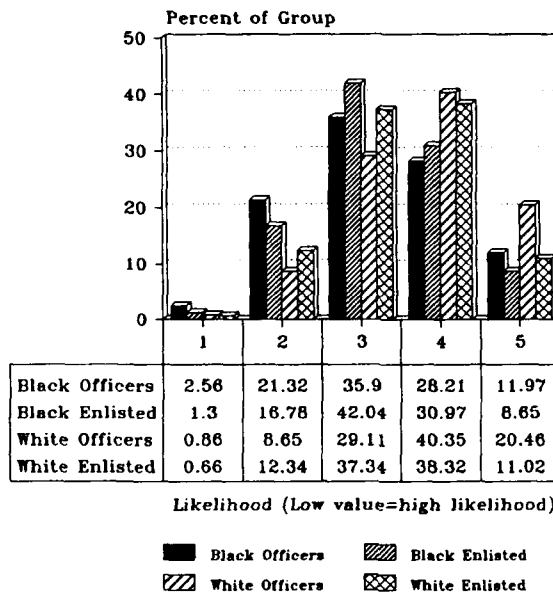
From MEOCS Field Test

Figure 16. Likelihood of Sex Harassment Behaviors by Race of Respondent



From: MEOCS Field Test

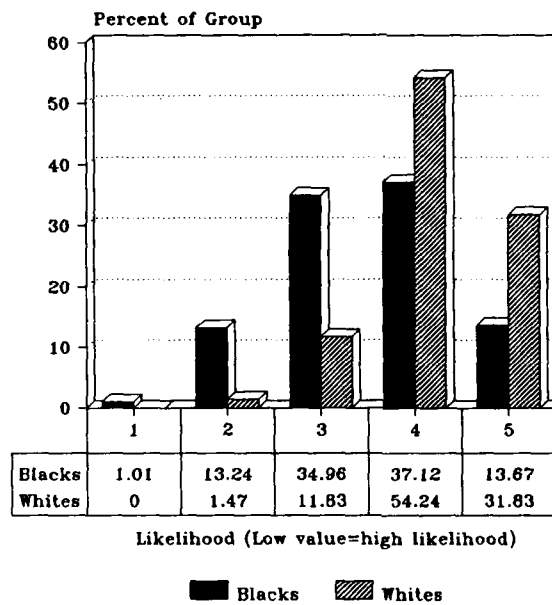
Figure 17. Likelihood of Sex Harassment Behaviors by Race and Rank of Respondent



From: MEOC Field Test

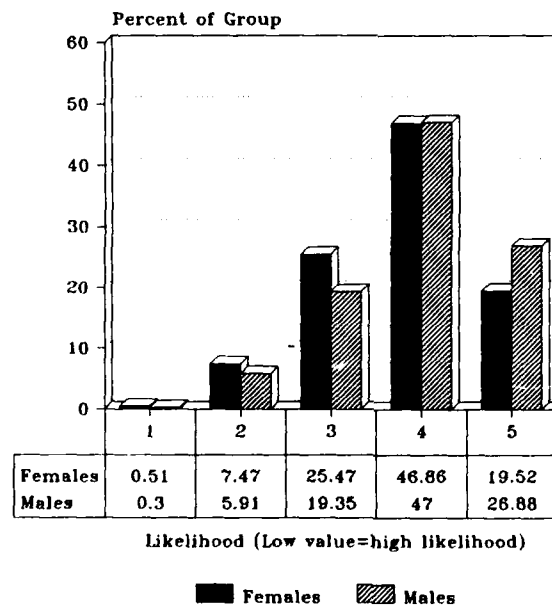
The differences between the racial groups are quite pronounced on the second MEOCS factor--Differential Command Behaviors--(Figure 18). Of the Black respondents, 49.21% estimate that these behaviors are at least "reasonably" likely; the comparable figure for Whites is 13.3%. Similar, though less dramatic, differences occur between females and males (33.45% vs 25.56%). The sex difference data are displayed in Figure 19. Rank appears in two interactions: with race (Figure 20) and sex (Figure 21). In neither case is the interaction strong, nevertheless, in both cases it is the officer group that more often denies the existence of these behaviors, with the White officers being the least likely to admit that these actions occur with any frequency.

Figure 18. Likelihood of Differential Command Behaviors by Race of Respondent



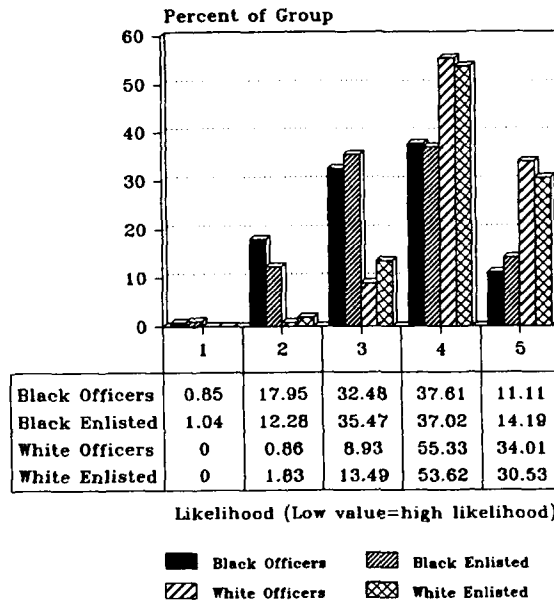
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Figure 19. Likelihood of Differential Command Behaviors by Sex of Respondent



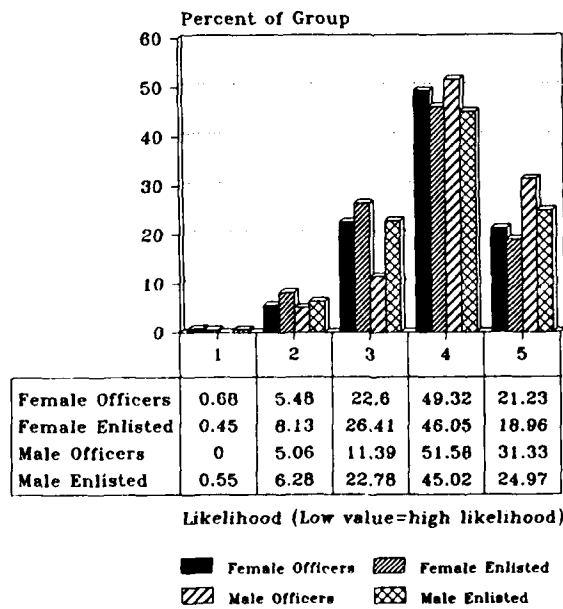
From: MEOCS Field Test

Figure 20. Likelihood of Differential Command Behaviors by Race and Rank of Respondent



From: MEOC Field Test

Figure 21. Likelihood of Differential Command Behaviors by Rank and Sex of Respondents



From: MEOCS Field Test

The behaviors included on the third MEOCS factor ("Positive Command/Social Behaviors") are seen by officers (Figure 22) and Whites to have a "very high chance" of occurring at a higher level than by enlisted personnel and Whites. The fourth factor ("Overt Racist/Sexist Behaviors") follows a pattern seen earlier: Whites judged these behaviors as less likely than did Blacks (Figure 24) and officers responded similarly to White respondents (Figure 25). Figure 26 indicates that, once again, it is the White officer group that is discrepant. Finally, male respondents, compared to females, estimate that the behaviors on the fifth factor ("Reverse' Discrimination Behaviors") are more likely (Figure 27).

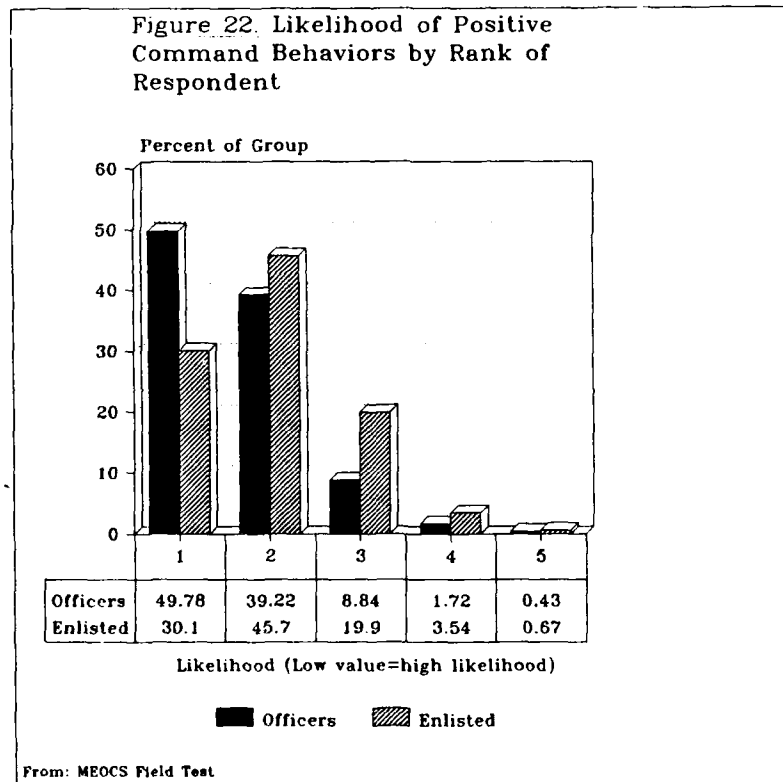
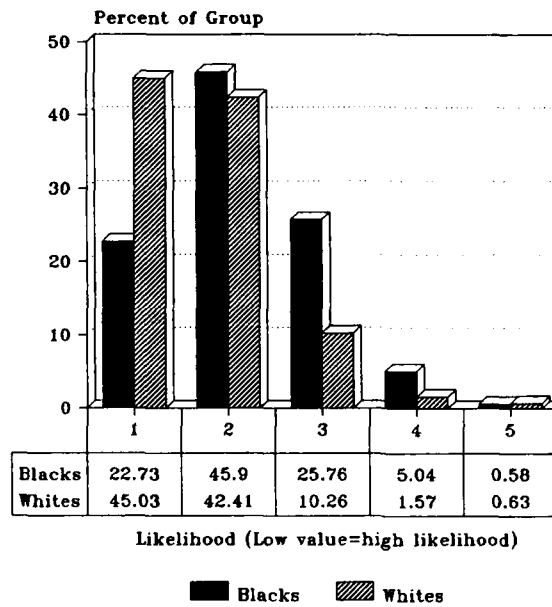
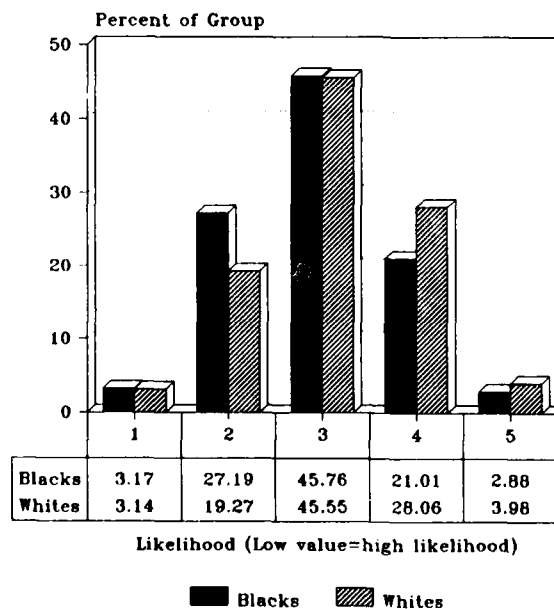


Figure 23. Likelihood of Positive Command Behaviors by Race of Respondent



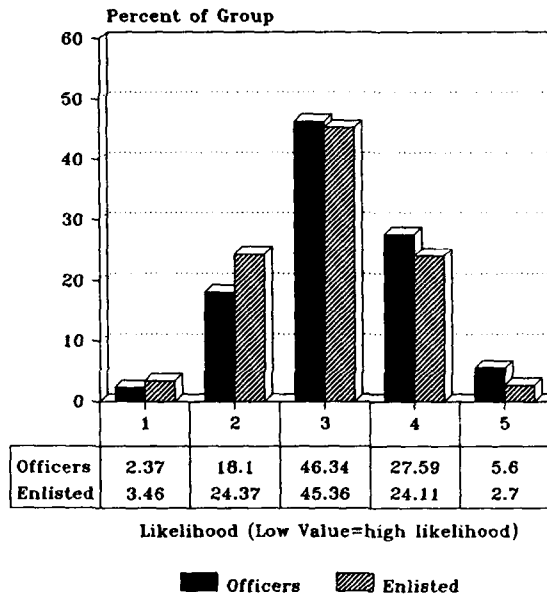
From: MEOCS Field Test

Figure 24. Likelihood of Racist/ Sexist Behavior by Race of Respondent



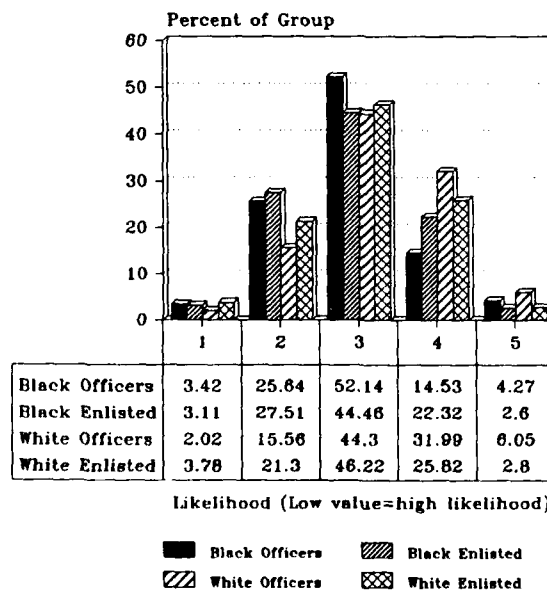
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**Figure 25. Likelihood of Racist/
Sexist Behavior By Rank
of Respondent**

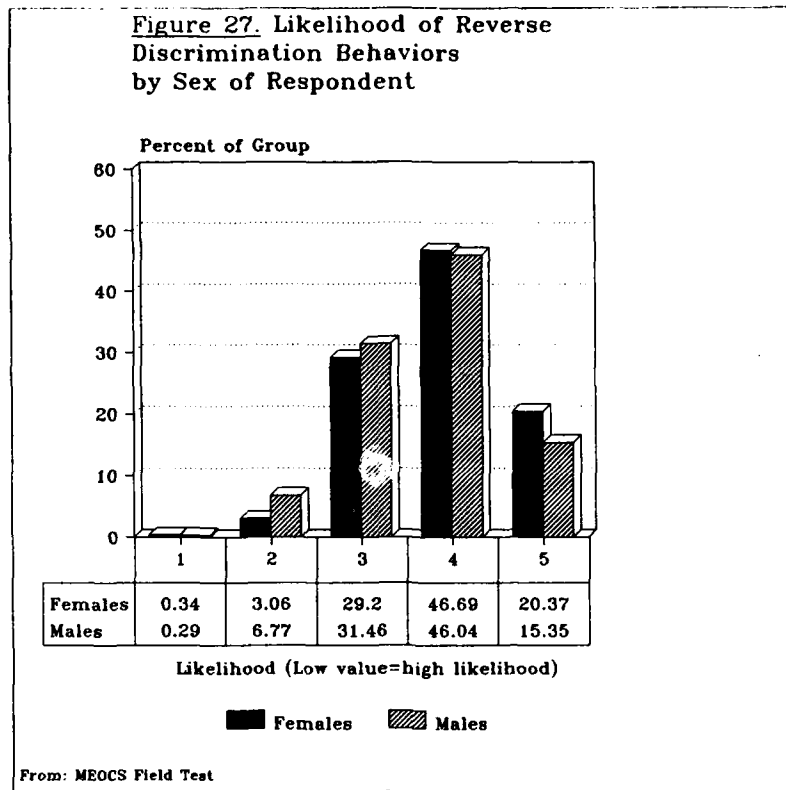


From: MEOCS Field Test

**Figure 26. Likelihood of Racist/
Sexist Behaviors By Race
and Rank of Respondent**



From: MEOCS Field Test



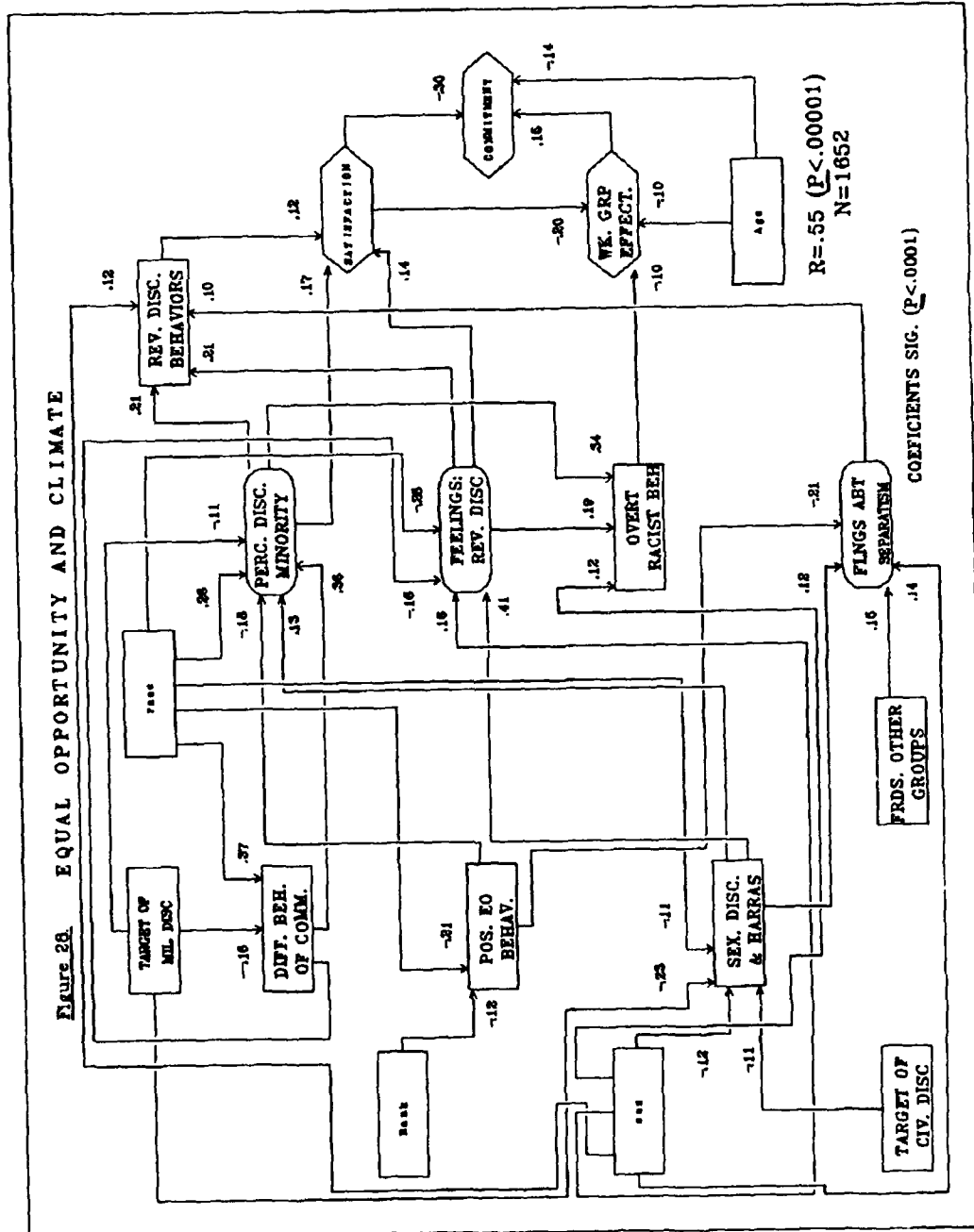
Path analysis

The path analysis, which extracted the causal antecedents of commitment to the service, is presented in Figure 28. Only coefficients greater than .10 and with a probability level of less than .0001 are used to define significant paths. The overall path is highly significant, accounting for some 30% of the total variance. The general impression is that, with the exception of MEOCS factors 4 and 5 ("Overt Racist/Sexist Behaviors" and "'Reverse' Discrimination Behaviors"), equal opportunity climate has its direct impacts on the attitudinal variables represented by the Modified Racial Attitudes and Perceptions Survey, which in turn affect the respondents' judgments about organizational functioning. It is also interesting to note that experiences with discrimination predict the levels of the two MEOCS factors most related to discriminatory behavior ("Sex Harassment/Discrimination Behaviors" and "Differential Command Behaviors"). Further, having had close friends of other racial/cultural groups plays a moderate, though significant part in decisions about remaining in the service. In this case, if one has had friends of other groups, one is more likely to be reluctant to endorse racial separatism, which also results in being more sensitive to "reverse" discrimination behaviors, which, in turn, has a significant effect on levels of satisfaction, when those behaviors are seen as probable.

As we have seen through the MANOVA , a respondent's demographic status has potent effects, though in most cases (the exception being age), on the decision to remain in the service. Thus, race and sex each have five significant paths (actually more if we consider the second level paths) and rank has one (through the third MEOCS factor--"Positive Command Behaviors").

Interview data

Inspection of the interview/written responses indicated that most respondents appeared to have little difficulty with answering the questions. Of the 88 MEOCS items, only eight had over one percent of the total sample indicating any kind of problem with the question. These items (numbers 5, 8, 35, 37, 55, 67, 70, and 88) did not reveal any obvious pattern in either content or wording. Many of the comments that were provided were non-specific in their focus but a few were useful. As an example, a number of respondents questioned the validity of items referring to women when "not every soldier will see male nurses" or "we have no women at our site so cannot answer this item." The comment on presence of women occurred at only one site, a forward infantry battalion. An analysis comparing that unit with its parent division (where women were located) revealed no differences. Nevertheless, the appropriateness of items about females for units without females was questioned at many different locales. Some further comments questioned the use of specific racial/sexual/ethnic terms either because of their archaicness or appropriateness in an official questionnaire (e.g., "The term 'spic' is rarely used;" "Jew down is an obsolete term;" and "honky is rarely, if ever used today."). A few responses pointed out occasional structural problems which were confusing (e.g., "double negatives"). There were a few comments on the logic of the survey as a whole (e.g., "This survey is very slanted against Whites, in particular White males in some situations where White males are the minority," "Too many questions dealing with officers/enlisted as opposed to subordinates/commander"). Despite the comments, the paucity of such remarks (even with anonymity clearly present) argues for a survey which engenders few problems with readability and respondent acceptability.



Discussion and Recommendations

Summary of results

The results may be summarized under three headings: (a) structure of measures, (b) reliability of measures, and (c) construct validity of MEOCS.

1. Structure of measures: MEOCS was found to have five significant dimensions: (a) Sexual Harassment/Discrimination Behaviors, (b) Differential Command Behaviors, (c) Positive Command/Social Behaviors, (d) Overt Racist/Sexist Behaviors, and (e) "Reverse" Discrimination Behaviors. The first two factors replicated the findings from the Landis and Fisher (1987), and Fisher (1988) studies. The third factor consisted of items that were added in the present version. The last two dimensions are new to the present study.

The Modified Racial Attitudes and Perceptions Survey produced three significant factors, all of which had occurred in earlier studies (e.g., Hiett, et al., 1978): (a) Perceived Discrimination Against Minorities, (b) Perceived "Reverse" Discrimination, and (c) Perception of Separatism. A fourth factor, Perceived Racial Climate, which had been reported earlier, was not found in the present study.

All of the organizational functioning measures were found to have unifactor structure. This finding replicates many earlier studies (see the Introduction section for pertinent articles).

2. Reliability of measures: The first three factors of MEOCS produced adequate to quite good levels of reliability. The last two factors were less consistent. These latter dimensions also contain fewer items.

The MRAPS factors had very good reliability indexes, though somewhat lower than reported a decade ago. This change might be due to modifications that we made in the measure to make it service general.

Good levels of reliability were also found with the measures of organizational functioning. Those findings were in rough accord with the levels reported in the literature.

A later analysis of alpha stability over branches of service indicates that the measures used here are relatively impervious to such effects. Only 2 of the 11 measures produced variability greater than .10 in the statistics (The Marine Corps alpha for the Overt Racist/Sexist Behaviors factor of MEOCS was .13 below the overall mean alpha--see Table 20; the Coast Guard alpha was higher than the mean on the "Reverse" Discrimination factor of the MRAPS). These findings suggest strongly that the data reported here were not affected by respondent's branch of service.

3. Construct validity of MEOCS: Construct validity is assessed by the extent that the measures discriminate as would be expected under some model or theory. In the present case, we would expect a number of discriminations: (a) Both sex and race should have significant effects on the Sex Harassment/Discrimination Behaviors factor, but the sex effect should be the largest. Women and Blacks should find these behaviors more likely than men and Whites. Since the mean square for sex was 1.4 times the race effect and both were significant, this expectation was confirmed; (b) While both sex and race should be significant discriminators on the Differential Command Behaviors factor, race should have the largest impact. Again, Blacks and women should find these behaviors more likely than Whites and men. Both of these expectations were confirmed. The mean square for race was 11.22 times as large as that for sex. (c) Rank was expected to be the major effect on the Positive Command/Social Behaviors factor with officers seeing these behaviors as more likely than enlisted. This finding was obtained; (d) Since we did not expect the last two factors to appear, no predictions were made. Nevertheless, the racial and sexual differences are in accord with those found on the first three factors. The very strong level of most of the differences provides strong evidence that the MEOCS has good construct validity.

Further evidence of construct validity comes from the path analysis. There is a great deal of evidence from the attitude-behavior literature suggesting that changes in behavior impact on attitudes much more than the reverse (see Triandis, 1975 for a summary of this literature). We would hypothesize that MEOCS provides an indicator or tracking of a set of perceived behavioral frequencies. Those behaviors are, of course, the ones being described in the instrument. We would also hypothesize that the items on the MRAPS constitute an affective reaction to those behaviors--i.e., an attitude. Hence we would expect MEOCS to impact on MRAPS and not the other way around. With the exception of the last two factors of MEOCS, this was precisely the result we found.

Discussion of findings

Aside from the psychometric properties of the measures, the substantive findings are also interesting. Within the previously indicated limitations of the sampling procedures, the data make some provocative suggestions. Clearly, surveyed Blacks perceive that discriminatory behaviors are highly likely to be visited upon them. To a lesser extent, women share this point of view. Both perceptions have developed from assessment of probability to generalized assessments of the situation as shown by the MRAPS results. At the same time, the group within the military most directly charged with maintaining equal opportunity, the officer corps, clearly is perceiving the situation in a somewhat different fashion from those in the minority. As each of the data distributions is inspected, the conclusion of two separate viewpoints is inescapable.

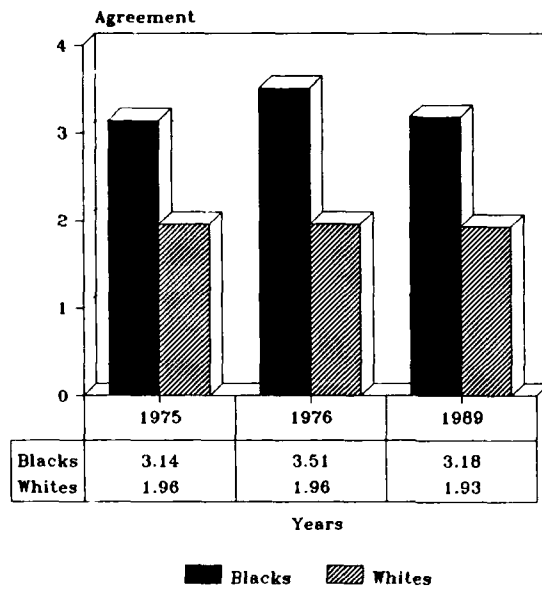
The data also indicate that minorities and women are lower in commitment, satisfaction, and perceived work group effectiveness. These are the variables most closely related to maintaining a highly motivated and stable population in the services. Almost a third of the variance in these variables can be accounted for by equal opportunity factors. As the civilian sector becomes more attractive, that 30% impact can well spell the difference between remaining in the service or opting for separation.

Further, there is evidence that things may not have changed much over the past decade or so. O'Mara (1977) used the RAPS in a longitudinal study of an infantry division. Data were gathered in 1975 and 1976. O'Mara included the item means in his report, so that a direct comparison with our data (restricting ourselves to the Army set only) becomes feasible. These data (Figures 29, 30, and 31) show rather clearly that Blacks in our sample perceive the same amount of discrimination today as in O'Mara's sample in the mid-1970s, and Whites have not changed in their perceptions of the lack of discrimination. The only sanguine aspect to these data is that both Blacks and Whites agree less now with the desirability of racial separation. Certainly, our analysis is consistent with both the Hiatt and Nordlie (1978) and O'Mara (1977) findings.¹

From a theory point of view, the present findings also suggest, contrary to some previous interpretations (e.g., O'Reilly & Caldwell, 1981), that job satisfaction is a precursor to commitment rather than the other way around. This interpretation makes good psychological sense. Satisfaction would seem to be a highly affectually loaded variable which, when activated, colors, filters, and structures incoming data, in this case aspects of the work situation. By selectively attending to consonant information and ignoring

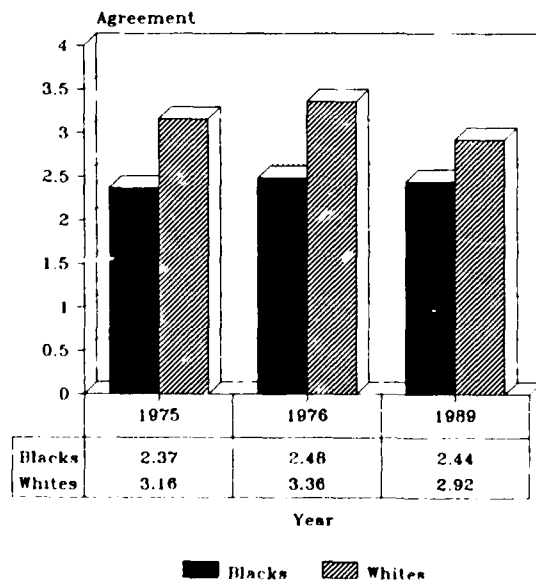
1. Unfortunately, while the Hiatt, McBride, and Fiman (1974) study did gather data from all services, item means were not presented with the branch identified. Thus, longitudinal comparisons for the Navy, Air Force and Marine Corps could not be made here.

**Figure 29. Perceived Discrimination
Against Minorities
(Army only: 1975-1989)**



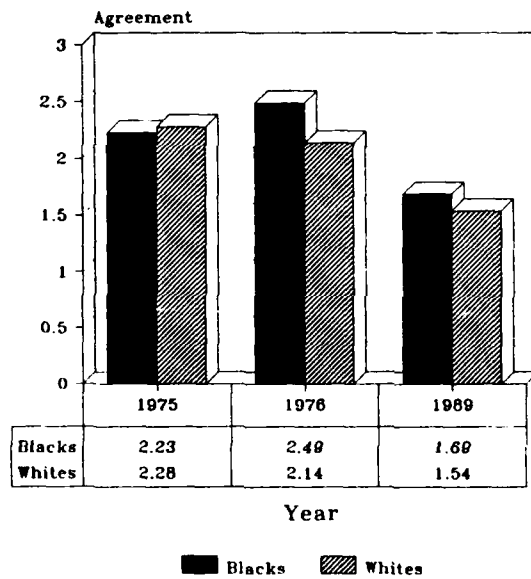
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**Figure 30. Perceived Reverse
Discrimination
(Army only: 1975-1989)**



CApRE

Figure 31. Feelings Toward
Separatism
(Army only: 1975-1989)



CApRE

discrepant information, a set of hypotheses about the organization are formed. These hypotheses, which become self-fulfilling, lead quite naturally to the decision to remain or leave the organization (i.e., to be committed). Certainly, our data in the military situation are a resonant echo of the findings of DeCotis and Summers (1987).

If the above findings are replicated with probability samples from the various services, then much has yet to be done to achieve President Truman's ideal of a racial and sexually integrated military service.

Recommendations

1. MEOCS should be formulated in two versions, one for situations where there are no women and one for all other situations. Men serving in combat specialties had some degree of difficulty in responding to the particular format of MEOCS. The issue seemed to be that since their situation did not contain female personnel, the items were not germane. At the same time, they did complete the questionnaire, but the sample was not large enough to analyze the situational effect. This could be the focus of a separate study.

2. If MEOCS is to be useful to commanders, some sort of norms should be established. These norms should not only be service specific but also job type specific within each branch. Thus, in developing the normative sample, care must be taken that it be stratified not only by race, rank, and sex, but also by job type (e.g., combat vs support vs. maintenance vs. law enforcement, etc). Before MEOCS can be fully used norms must be established.

3. Along with the establishment of norms, a utilization manual should be prepared. Such a document would give the commander information on not only what the figures mean but also suggestions on actions that could be taken to improve the EOC at his or her unit. To the extent that this manual, or consultation service, is carefully prepared, then MEOCS will be seen as more than just another survey.

4. As mentioned above, there are strong indications that MEOCS has construct validity and impacts perceptions of organizational functioning. Yet, the question of EOC's relationship to observable organizational functioning remains to be investigated. Here it is necessary to select units exhibiting a wide variety of points along some set of management indexes. Once the units are selected, it is a relatively simple task to assess the concurrent validity of MEOCS with these indexes. Of course, one would have to be fairly certain in advance that the chosen indexes are, themselves, good criteria.

5. When MEOCS is released for general use, its application in the field should be closely monitored. Data should be analyzed at the central locale (e.g., DEOMI) and periodically checked to be sure that reliability and validity are not changing appreciably. Comments from the field can be used to modify wording and other format aspects of the instrument.

6. A process for adding, deleting, or modifying MEOCS items should be institutionalized. Over time, the behaviors problematic for EOC will change. For example, a MEOCS developed in the 1970s would have focused almost exclusively on overt Black-White interactions. Today, as these behaviors have waned (a possible reason for the fairly low reliability of the fourth and fifth MEOCS factors), issues of sexism and more subtle forms of racism have come to the fore.

7. Based on the factor structure, we can make tentative recommendations for items to be included in the next version of MEOCS (the reader can refer to Appendix A for the specific wording of the items noted by number). We have limited ourselves to 10 items per factor and, when sufficient items were not available, new items have been written. These new items are indicated by (*).

(a) Sexual Harassment/Discrimination Behaviors: items 50,63,66,69,73,80,81,83,84,86.

(b) Differential Command Behaviors: items 10,16,18,27,30,34,43,56,65,75.

(c) Positive Command/Social Behaviors: items 5,7,19,38,49,61,64.

*Unit special events (athletic programs, picnics, etc.) were attended by both majority and minority personnel.

*The spouses of White and minority personnel were seen going out together to socialize.

*A new minority person joined the unit and quickly developed close White friends from within the unit.

(d) Overt Racist/Sexist Behaviors: items 3,12,13,28,67,70.

*A senior NCO made demeaning comments about minority personnel.

*A minority enlisted man made off-color remarks about a minority enlisted woman.

* A majority military person complained that there was too much interracial dating at this duty location.

* At an intramural athletic event, a White military person in the audience yelled a racial slur at a member of the other team.

(e) "Reverse" Discrimination Behaviors: items 4,21,31,33,88.

* A race relations survey was taken, but no groups other than Blacks and Whites were used.

* A minority enlisted man was selected for a prestigious assignment over a White enlisted man who was equally, if not slightly better, qualified.

* A Black enlisted woman was given the Military Member (e.g., Soldier, Sailor, Marine, etc.) of the Month Award even though she had slightly fewer points than her nearest competitor, a White enlisted man.

* A White and a minority enlisted person turned in similar pieces of equipment with similar problems. The minority person was given a new issue; the other equipment was sent to maintenance for repair.

* A commander invited a newly arrived Black male officer to lunch to make him feel welcome, but did not invite a White male officer to lunch who had joined his staff a few weeks earlier.

The above set of 50 items constitute a set of dimensions that appear to adequately, and cleanly, tap the main aspects of equal opportunity climate. However, the addition of the new items makes further analyses necessary before the instrument is finalized.

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Appendix A

**Military Equal Opportunity Climate Survey
(1989 Field Test Version)**

**Center for Applied Research and Evaluation
University of Mississippi
University, MS 38677**

Center for Applied Research and Evaluation

207 Peabody Hall
University of Mississippi
University, MS 38677
(601) 232-7797
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The Center for Applied Research and Evaluation is under contract to help the Department of Defense develop a way of examining the equal opportunity climate of the various service branches. An important step in achieving this goal is your help in completing the attached survey. We think you will find the survey interesting. Instructions for each survey are given at the beginning of each part.

There are six (6) parts to the survey package:

1. Part I is a listing of some actions that have been determined to have some relation to the level of equal opportunity climate. We are going to ask you to estimate how often these actions occur.

2. Parts II, III, and IV ask questions concerning what you think about your branch of service and your specific job assignment.

3. Part V asks your opinions about a number of issues that have been discussed in relation to affirmative action and equal opportunity.

4. Part VI asks some information about you. This information will only be used to help us analyze the results of the survey.

DO NOT PLACE ANY IDENTIFYING INFORMATION ON THE ANSWER SHEET. THIS IS SO YOUR ANSWERS CAN REMAIN CONFIDENTIAL.

We thank you for your help.

Dr. Dan Landis
Dr. Gloria Fisher

PART I

MILITARY EQUAL OPPORTUNITY CLIMATE SURVEY (MEOCS)

AS PART OF A PROJECT TO DEVELOP A MEASURE OF EQUAL OPPORTUNITY CLIMATE WE NEED TO GAUGE THE POTENTIAL FREQUENCY OF CERTAIN KINDS OF ACTIONS. WE HAVE GATHERED THE LIST OF ACTIONS FROM SERVICE PEOPLE ON ACTIVE DUTY LIKE YOURSELVES. WE ASK THAT YOU ESTIMATE THE CHANCES THAT THE ACTION OCCURRED DURING THE PAST 30 DAYS AT YOUR DUTY LOCATION (BASE, POST, SHIP, ETC.).

Use the following scale to make your judgments:

- 1 = There is a very high chance that the action occurred.
- 2 = There is a reasonably high chance that the action occurred.
- 3 = There is a moderate chance that the action occurred.
- 4 = There is a small chance that the action occurred.
- 5 = There is almost no chance that the action occurred.

EXAMPLE: IF, IN YOUR OPINION, THERE IS A VERY HIGH CHANCE THAT "AN ENLISTED MALE GAVE A 'WOLF WHISTLE' TO AN ENLISTED FEMALE," YOU WOULD ASSIGN A "5" TO THAT ACTION.

REMEMBER: YOU NEED NOT HAVE PERSONALLY SEEN OR EXPERIENCED THE ACTIONS. WE ONLY WANT YOUR OPINION ON THE CHANCES THAT THE ACTION MIGHT HAVE OCCURRED.

FOR THE PURPOSES OF THIS SURVEY, "MINORITY" INCLUDES MALES OR FEMALES OF THE FOLLOWING RACIAL/ETHNIC GROUPS:

*BLACK (NOT OF HISPANIC ORIGIN)
HISPANIC
ASIAN OR PACIFIC ISLANDERS
NATIVE AMERICAN/ALASKAN NATIVE*

"MAJORITY" OR "WHITE" INCLUDES MALES AND FEMALES NOT IN THE GROUPS LISTED ABOVE.

BY "COMMANDER", WE MEAN ANY PERSON IN A POSITION OF COMMAND AT ANY LEVEL IN THE ORGANIZATION.

MORE INSTRUCTIONS ON NEXT PAGE

AGAIN, PLEASE RATE EACH ACTION, EVEN IF YOU HAVE NOT PERSONNALLY EXPERIENCED IT.

RATE EACH ACTION ON THE ANSWER SHEET PROVIDED AND REMEMBER: THERE ARE NO RIGHT OR WRONG ANSWERS.

Military Services Equal Opportunity Climate

Use the following scale to make your judgments:

- 1 = There is a very high chance that the action occurred.
- 2 = There is a reasonably high chance that the action occurred.
- 3 = There is a moderate chance that the action occurred.
- 4 = There is a small chance that the action occurred.
- 5 = There is almost no chance that the action occurred.

At your duty location:

1. Racially integrated sports teams were seen in competition after duty hours.

2. A minority individual was refused service at a civilian establishment.

3. A White military member told several jokes about Blacks and other minorities.

4. The commanding officer did not appoint a qualified White as chief of staff, but instead appointed a less qualified minority.

5. Majority and minority officers were seen socializing together at off duty locations.

6. A senior supervisor was overheard complaining that affirmative action/equal opportunity guidelines have hampered the service's promotion policies.

7. Majority and minority enlisted personnel were seen socializing together at off-duty locations.

8. Women in military security were not assigned to duty where they would be working alone.

9. A male nurse was harassed by other males because of his "feminine" job.

10. A White officer frequently reprimanded a minority enlisted person but rarely reprimanded a White enlisted person.

11. New personnel were told that discrimination against minorities and women was against service regulations and violators would be reprimanded.

12. A group of Black and White service people were overheard using the term "spic."

13. Graffiti written on the restroom/head walls "put down" minorities and women.

14. A minority officer expected extra work from minority subordinates to "advance" their careers.

15. A military woman was told by her commanding officer to style her hair in a less "manish" manner.

16. A minority person was reprimanded by a commanding officer for dating a same ranked White person of the opposite sex (who is not in their chain-of-command).

17. Both males and females were required to participate in training about sexual harassment.

18. A White commanding officer did not recommend promotion for a qualified minority subordinate.

19. When the commanding officer held staff meetings, females and minorities, as well as White males, were asked to contribute suggestions to solve problems.

20. Hispanics were assigned to quarters in the same area as other Hispanics because it was thought they would be more "comfortable" there.

21. The commanding officer always gave the less desirable temporary duty locations to men.

22. A male officer asked a female subordinate to stay after duty hours to discuss her job performance. He always discussed male subordinates' performance during duty hours.

23. An enlisted woman was investigated for being a lesbian with the evidence being that she lives off base with another woman and had said "no" to male advances.

24. A qualified Hispanic work group leader with an accent was not allowed to brief visitors.

25. A qualified female officer was not given responsibility for an important project if qualified male officers of the same rank were available.

26. A military person was overheard saying, "They want too much money for the cassette player; I'll try to Jew them down."

27. A minority enlisted person was assigned less desirable living quarters than a White.

28. The term "dyke," referring to a particular female military member, was overheard in the mess/dining facility.

29. A Christian prayer was used at a mandatory formation.

30. The commanding officer changed the duty roster when he or she discovered that two Blacks were assigned to guard duty on the same shift.

31. Minorities and Whites sit at separate tables in the mess/dining facility.

32. Only men were assigned to brief visiting officials on technical matters.

33. All equal opportunity staff were either females or minorities.

34. A commanding officer giving a lecture took more time when answering questions from Whites than when answering questions from minorities.

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Use the following scale to make your judgments:

- 1 = There is a very high chance that the action occurred.
- 2 = There is a reasonably high chance that the action occurred.
- 3 = There is a moderate chance that the action occurred.
- 4 = There is a small chance that the action occurred.
- 5 = There is almost no chance that the action occurred.

35. A male officer assigned work to his minority and women subordinates on an equal basis compared to White males.

36. All the enlisted individuals assigned cooking duties were minorities.

37. A military man carried an enlisted woman's gear, while insisting that men carry their own.

38. Majority and minority enlisted personnel were seen socializing together.

39. When one of the female staff offered suggestions at a staff meeting, she was consistently ignored, while the suggestions from male staff were considered.

40. Minority military persons complained about discrimination

41. A supervisor propositioned a female enlisted person for sexual favors.

42. The base library was found to be stocked almost exclusively with books and records geared for majority members.

43. When reprimanding a Black enlisted person, the White noncommissioned officer used terms such as "boy."

44. A female supervisor was often mistaken by males for a clerk.

45. A male officer called a female officer with whom he had only a slight acquaintance, "honey."

46. The investigation of a sexual harassment complaint was initiated immediately.

47. A female was separated from males at physical training because she "couldn't keep up."

48. A commanding officer was asked to give a speech to new personnel in support of equal opportunity/affirmative action (EO/AA) goals, but sent a subordinate instead.

49. Field grade (above O-3) female officers had both males and females as subordinates.

50. A male officer touched a female officer, but never touched male coworkers.

51. A White enlisted woman who is dating a Black man had crude suggestions made to her by her male coworkers.

52. A military woman received "cat calls" or whistles when walking in front of a male work group.

53. A minority person believed that his/her promotion was earned on a competitive basis.

54. A female in the unit was not assigned to late or hazardous duty because she would not be "safe" alone.

55. Women were not allowed to wear uniform slacks at mandatory formations.

56. A reenlistment speech to a minority enlisted person focused on the lack of opportunity elsewhere; to a White enlisted, it focused on promotion.

57. A Jewish enlisted person was not given leave for a Jewish holiday but rather for a Christian one occurring at about the same time.

58. A female in the unit was asked not to wear shorts to a sporting event because they were too "sexy."

59. A White officer went over the work of a minority subordinate in far greater detail than the work of a White subordinate.

60. A person in the unit displayed a Confederate flag in his/her quarters.

61. White personnel joined minority friends at the same table in the mess hall/dining facility.

62. A female officer was given a competitive training opportunity previously limited to male officers.

63. When a female officer was promoted, a male officer made the comment, "I wonder who she slept with to get promoted so fast."

64. A commanding officer gave the same punishment to minority and White enlisted persons for the same offense.

65. A qualified minority lieutenant was denied the opportunity for professional military education by his/her commanding officer. A White lieutenant with the same qualifications was given the opportunity.

66. When a female complained of sexual harassment to her superior, he told her, "You're being too sensitive."

67. Offensive racial/ethnic names were not heard.

68. A minority officer reprimanded a White enlisted person frequently but never did this to a minority enlisted person.

69. The only female in a work group was expected to provide house-keeping supplies, such as needle and thread, aspirin, etc., in her desk.

70. Racial/ethnic jokes were not heard.

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Use the following scale to make your judgments:

- 1 = There is a very high chance that the action occurred.
- 2 = There is a reasonably high chance that the action occurred.
- 3 = There is a moderate chance that the action occurred.
- 4 = There is a small chance that the action occurred.
- 5 = There is almost no chance that the action occurred.

71. A male in the unit left *Penthouse* or a similar magazine on his desk where a female co-worker could see it.

72. A minority officer referred to a White officer as "honkey."

73. A female was asked to take notes and provide refreshments at staff meetings (such duties were not part of her job assignment).

74. A lecture on sexual harassment focused only on how women should act and dress to avoid sexual harassment.

75. A commanding officer gave a minority subordinate a more severe non-judicial punishment for a "minor" infraction. A White who committed the same offense was given a less severe penalty.

76. A Black serviceman's co-workers no longer included him in their social events after he told them he is dating a White woman.

77. A non-Hispanic person felt comfortable overhearing friends speaking Spanish among themselves and then switching to English as he/she approached.

78. When the senior officer responsible for equal opportunity visited, the commanding officer selected a minority person, who was not the equal opportunity advisor, to be the escort.

79. The commanding officer told a female officer that he would prefer not to send her on temporary duty because she has children at home, but did not use the same consideration for men.

80. A better qualified male officer was not picked for a good temporary duty assignment because the commanding officer said it would look better for equal opportunity to have a female officer on this temporary duty.

81. An officer referred to women subordinates by their first names in public while using ranks for the male subordinates.

82. A trained female mechanic was assigned to administration; a male trained in administration was assigned to mechanics.

83. The commanding officer assigned an attractive female to show visiting male officials around because, "We need someone nice looking to show them around."

84. A military woman who complained of sexual harassment was transferred to another unit.

85. A majority officer was overheard saying, "A minority person was promoted instead of a better qualified White."

86. A male enlisted person stated, "Our unit worked together better before the woman was assigned to us."

87. An official invitation read "wives are invited."

88. At off-duty social activities, minorities and Whites were seen socializing in the same group.

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PART II.

Assume that you have completed your entire tour of duty the location where you are now stationed and the job characteristics were about the same for the entire tour. Answer the following questions regarding how you would feel about the Air Force. Use the scale below:

- | |
|---|
| 1 = totally agree with the statement |
| 2 = moderately agree with the statement |
| 3 = neither agree nor disagree with the statement |
| 4 = moderately disagree with the statement |
| 5 = totally disagree with the statement |

89. I would accept almost any type of job assignment in order to keep working for the Air Force.

90. I find that my values and the Air Force's values are very similar.

91. I am proud to tell others that I am part of the Air Force.

92. I could just as well be working for a civilian organization as long as the type of work was similar.

93. I feel very little loyalty to the Air Force.

94. The Air Force really inspires the very best in me in the way of job performance.

95. It would take very little change in my present circumstances to cause me to leave the Air Force.

96. I am extremely glad that I chose to join or work for the Air Force over other Services that I was considering.

97. There's not too much to be gained by sticking with the Air Force to retirement.

98. Often, I find it difficult to agree with the Air Force's policies on important matters relating to its people.

99. For me, the Air Force is the best of all possible organizations for which to work.

100. Deciding to join the Air Force was a definite mistake on my part.

PART III.

Please respond to the following items regarding the effectiveness of your work group (all persons that report to the same supervisor that you do) using the scale below:

- | |
|---|
| 1 = totally agree with the statement |
| 2 = moderately agree with the statement |
| 3 = neither agree nor disagree with the statement |
| 4 = moderately disagree with the statement |
| 5 = totally disagree with the statement |

101. The *amount* of output of my work group is very high.

102. The *quality* of output of my work group is very high.

103. When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.

104. My work group always gets maximum output from available resources (e.g., personnel and materials).

105. My work group's performance in comparison to similar work groups is very high.

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PART IV.

The questions below are used to determine how satisfied you are with some specific job-related issues. Indicate your degree of satisfaction or dissatisfaction by choosing the most appropriate phrase:

- 1 = very dissatisfied
- 2 = moderately dissatisfied
- 3 = neither dissatisfied nor satisfied
- 4 = somewhat satisfied
- 5 = very satisfied

What is your level of satisfaction with:

106. The chance to help people and improve their welfare through the performance of my job.

107. My amount of effort compared to the effort of my co-workers.

108. The recognition and pride my family has in the work I do.

109. My job security.

110. The chance to acquire valuable skills in my job that prepare me for future opportunities.

111. My job as a whole.

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Part V

On your answer sheet, mark your answer to each of these questions, as follows:

- 1 = totally agree with the statement
- 2 = moderately agree with the statement
- 3 = neither agree nor disagree with the statement
- 4 = moderately disagree with the statement
- 5 = totally disagree with the statement

112. Minorities and women were better off before this equal opportunity business got started.

113. More severe punishments are given out to minority as compared to majority offenders for the same types of offenses.

114. Whites in charge of minority supervisors doubt the minorities' abilities.

115. Minorities get more extra work details than Whites.

116. I understand the feelings of people of other races better since I joined the military service.

117. The military service is firmly committed to the principle of fair treatment for all its members.

118. After duty hours, military people should stick together in groups made up of their race only (e.g., Blacks only with Blacks, and Whites only with Whites).

119. White males act as though stereotypes about minorities and women are true (for example, "Blacks are lazy").

120. Trying to bring about the integration of women and minorities is more trouble than it's worth.

121. If the race problem can be solved anywhere, it can be solved in the military service.

122. White males have a better chance than minorities and women to get the best training opportunities.

123. Whites assume that minorities commit every crime that occurs, such as thefts in living quarters.

124. White males do not show proper respect for minorities and women with higher rank.

125. Minorities and Whites would be better off if they lived and worked only with people of their own races.

126. I dislike the idea of having a supervisor of a race different from mine.

127. White males are not willing to accept criticism from minorities and women.

128. Whites get away with breaking rules that result in punishment for minorities.

129. Some minorities and women get promoted just because they are minorities and women.

130. Power in the hands of minorities is a dangerous thing.

131. Minorities and women frequently cry "prejudice" rather than accept responsibility for personal faults.

132. I wouldn't like to have a supervisor of the opposite sex.

133. The military service provides a good career opportunity for minorities and women.

134. Minorities and women get away with breaking rules that White males are punished for.

135. There should be more close friendships between minorities and Whites in the military service.

136. At this duty location, I have personally felt discriminated against because of my race.

137. Minorities don't take advantage of the educational opportunities that are available to them.

138. Many minorities act as if they are superior to Whites

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PART VI

Now, please tell us some things about yourself:

139. I have personally experienced an incident of discrimination (racial, sexual, or sexual harassment) directed at me from military sources (including civilians employed by the military).

1 = YES 2 = NO 6 = N/A

140. I filed a complaint (or request mast) on the incident.

1 = YES 2 = NO 6 = N/A

141. I was satisfied with the disposition of the complaint that I filed.

1 = YES 2 = NO 6 = N/A

142. I have personally experienced an incident of discrimination (racial, sexual, or sexual harassment) from non-military sources.

1 = YES 2 = NO 6 = N/A

143. I filed a complaint on the incident.

1 = YES 2 = NO 6 = N/A

144. I was satisfied with the disposition of the complaint that I filed.

1 = YES 2 = NO 6 = N/A

145. What was the highest grade you completed in school?

- 1 = Less than graduating from high school
- 2 = High school graduate or G.E.D.
- 3 = Some college
- 4 = College degree
- 5 = Advanced college work or degree

146. Before I joined the service, about _____ percent of close personal friends who were of the same racial/ethnic group as me:

- 1 = 25 percent or less
- 2 = More than 25 but less than 50 percent
- 3 = More than 50 but less than 75 percent
- 4 = More than 75 but less than 100 percent
- 5 = All of my close personal friends were of my racial/ethnic group.

147. Currently, I have at least one close personal friend (a person with whom I would feel comfortable discussing very personal problems) who is of a different racial/ethnic group than myself.

1 = YES 2 = NO

148. Most people would rate the equal opportunity climate at this duty location as:

- 1 = Very Poor
- 2 = Poor
- 3 = About Average
- 4 = Good
- 5 = Very Good

149. I, personally, would rate the equal opportunity climate at this duty location as:

- 1 = Very Poor
- 2 = Poor
- 3 = About Average
- 4 = Good
- 5 = Very Good

150. Your gender?

1 = Female 2 = Male

FOR THE NEXT QUESTIONS, PLACE YOUR ANSWERS IN THE BOX LABELED "STUDENT NUMBER" IN THE UPPER LEFT HAND CORNER OF THE ANSWER SHEET.

FIRST LINE: Your racial/ethnic group?

- 1 = American Indian or Alaskan Native
- 2 = Asian or Pacific Islander
- 3 = Black (not of Hispanic origin)
- 4 = Hispanic
- 5 = White (not of Hispanic origin)
- 6 = Other

SECOND LINE: Which of the following best describes your status?

- 1 = Officer
- 2 = Warrant Officer
- 3 = Enlisted

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THIRD LINE: If enlisted, what pay grade? .

- 1 = E1 - E3
- 2 = E4
- 3 = E5
- 4 = E6
- 5 = E7
- 6 = E8 and above
- 9 = NOT AN ENLISTED PERSON

FOURTH LINE: If Warrant Officer, what pay grade?

- 1 = W1
- 2 = W2
- 3 = W3
- 4 = W4
- 9 = NOT A WARRANT OFFICER

FIFTH LINE: If officer, what pay grade?

- 1 = O1-O2
- 2 = O3
- 3 = O4
- 4 = O5
- 5 = O6
- 6 = O7 or above
- 9 = NOT AN OFFICER

FOR THE LAST TWO QUESTIONS, PLACE
YOUR ANSWERS IN THE BOX LABELED "SEC-
TION NUMBER" IN THE UPPER LEFT HAND
CORNER OF THE ANSWER SHEET.

FIRST LINE: Your age?

- 1 = Under 20 years of age
- 2 = 20 - 25
- 3 = 26 - 30
- 4 = 31 - 40
- 5 = 41 - 50
- 6 = 51 and over

SECOND LINE: YOUR BRANCH OF SERVICE?

- 1 = AIR FORCE
- 2 = ARMY
- 3 = NAVY
- 4 = MARINES
- 5 = COAST GUARD

**THAT'S ALL! THANK YOU AGAIN FOR YOUR
HELP.**